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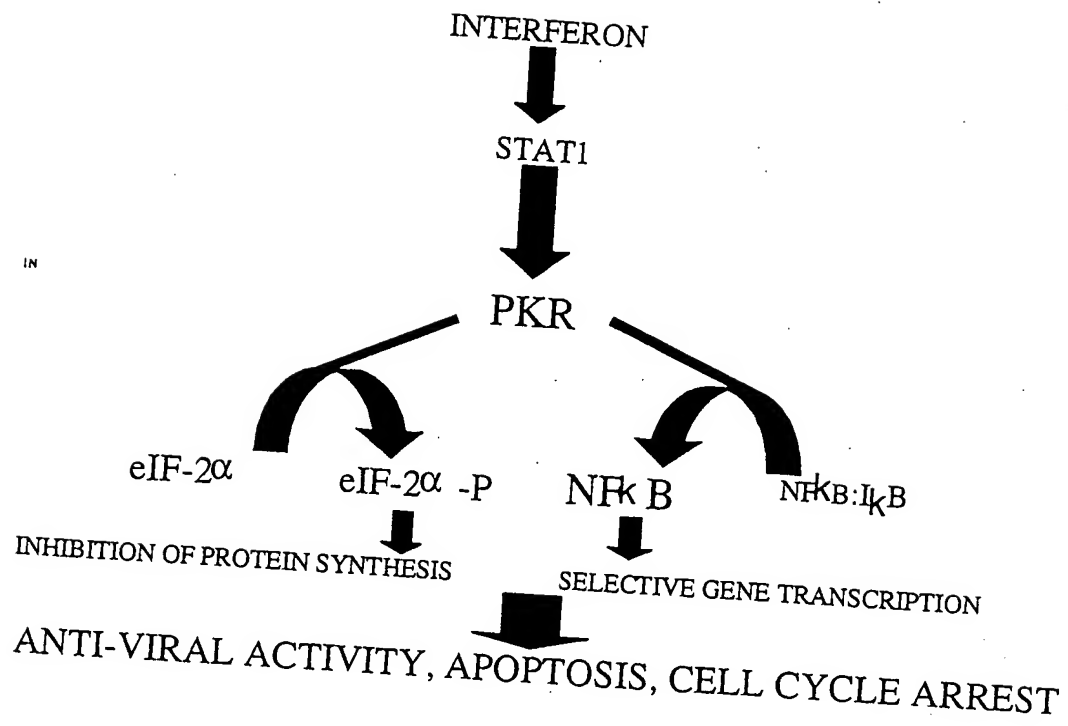


FIGURE 1

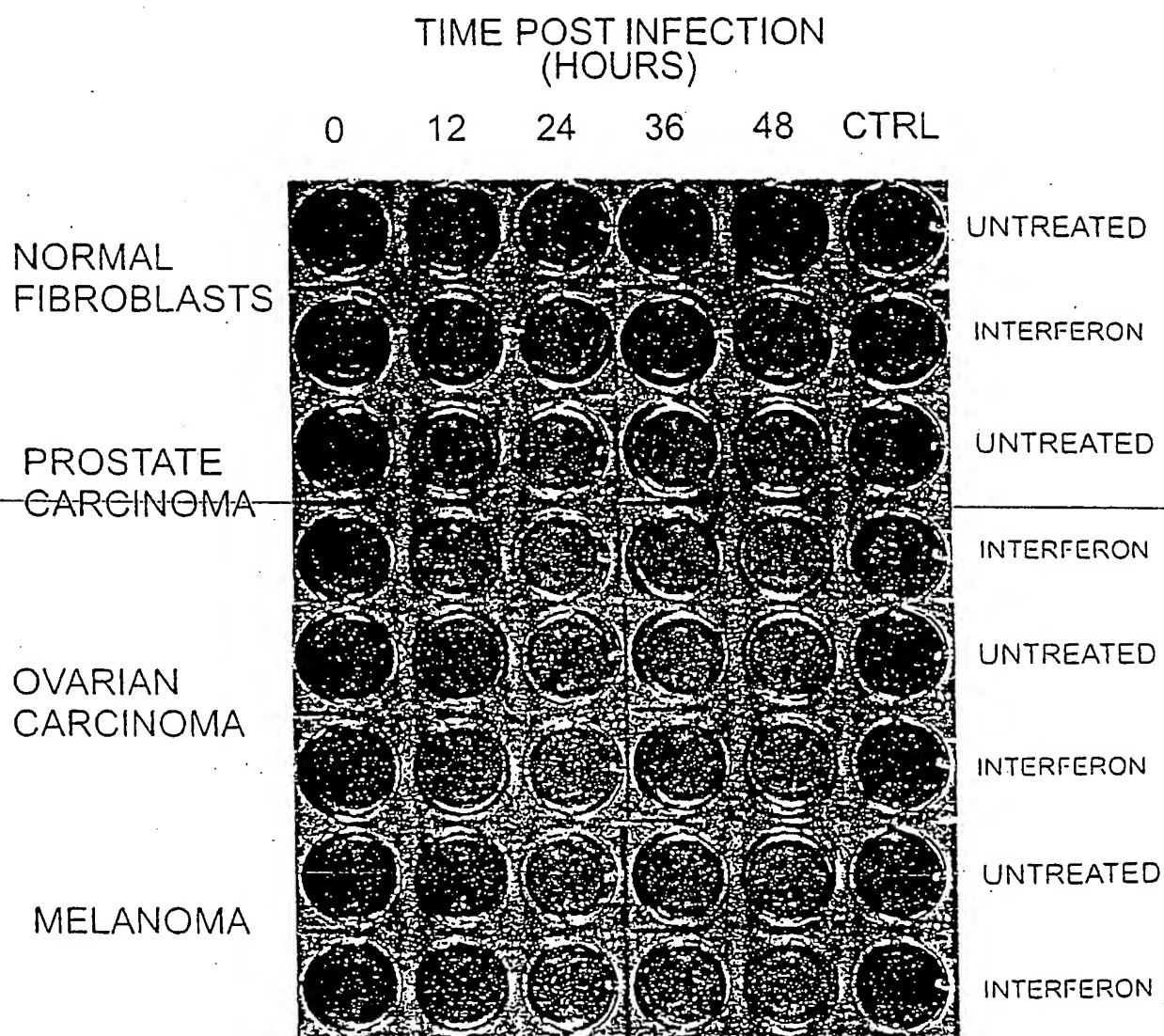
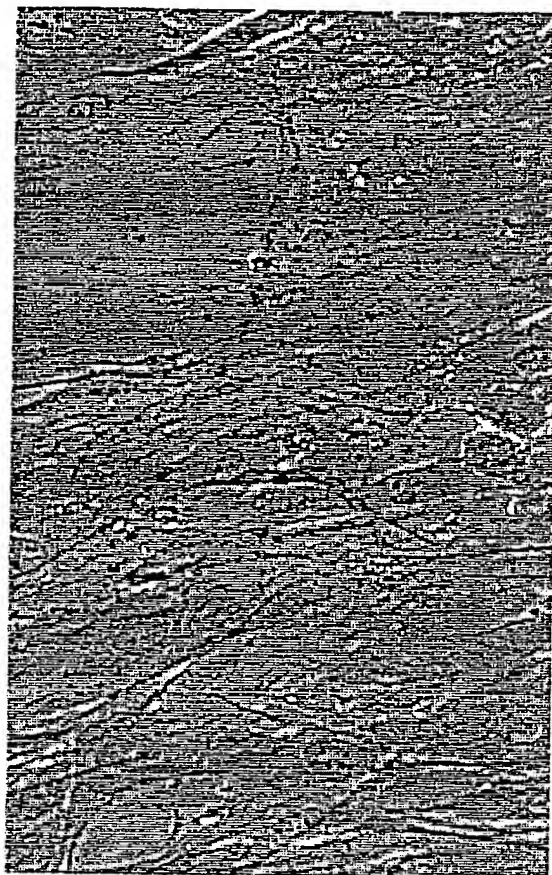
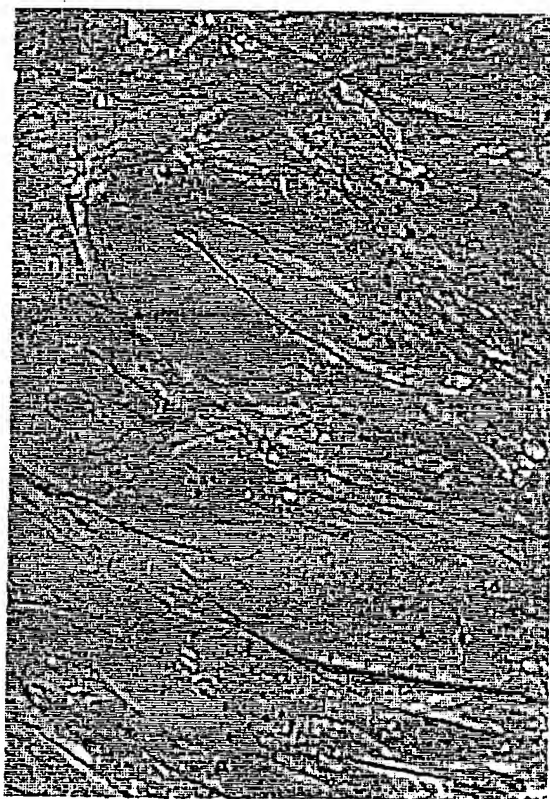


FIGURE 2

VSV INFECTION OF NORMAL HUMAN FIBROBLASTS

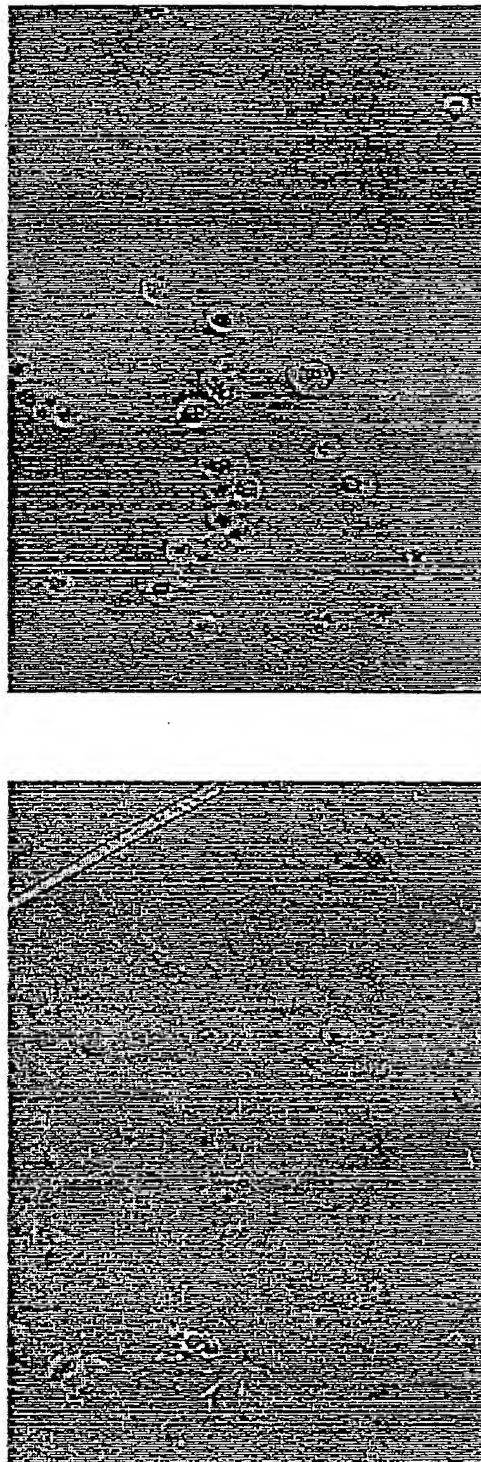


MOCK INFECTED

VSV MOI 1 PFU/18
HOURS

FIGURE 3A

VSV INFECTION OF OVCAR433

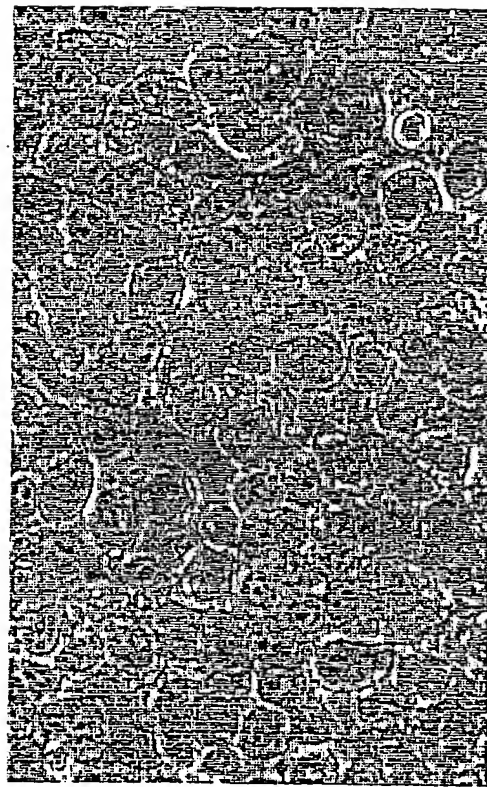


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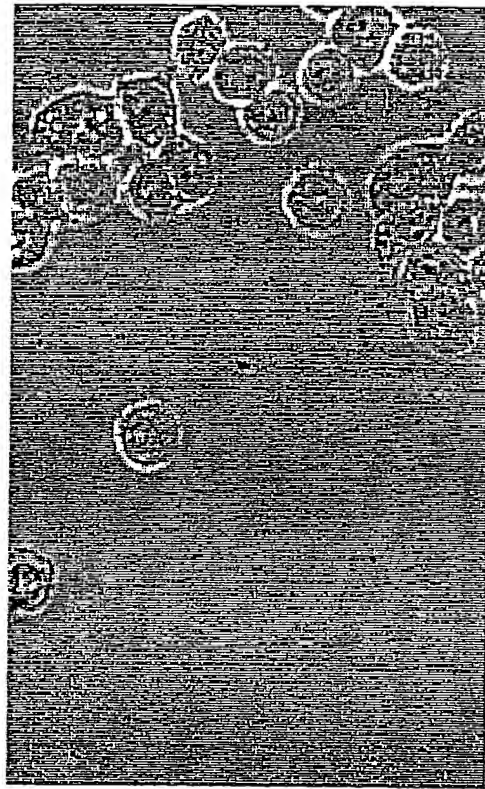
VSV 0.1 PFU/18 HRS

FIGURE 3B

VSV INFECTION OF KB CELLS



MOCK INFECTED



VSV moi 1 PFU/18HRS

FIGURE 3C

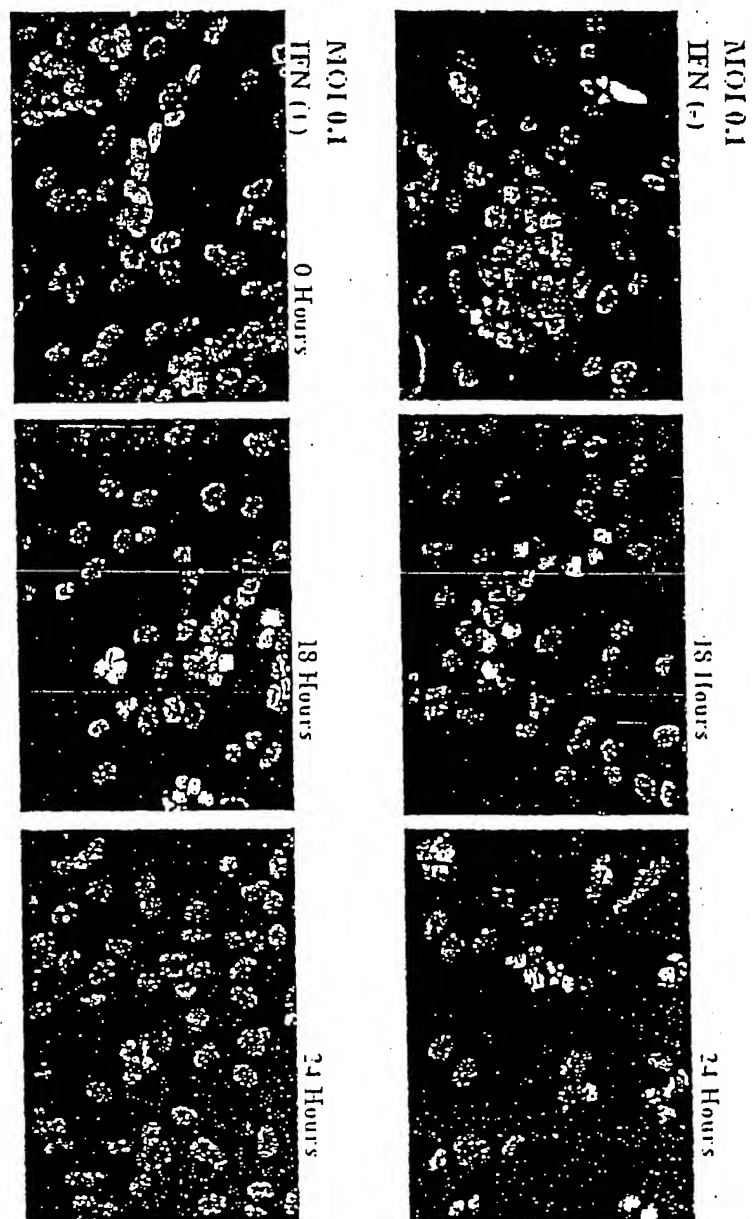


FIGURE ⁴/₈

Nude Mouse Tumours

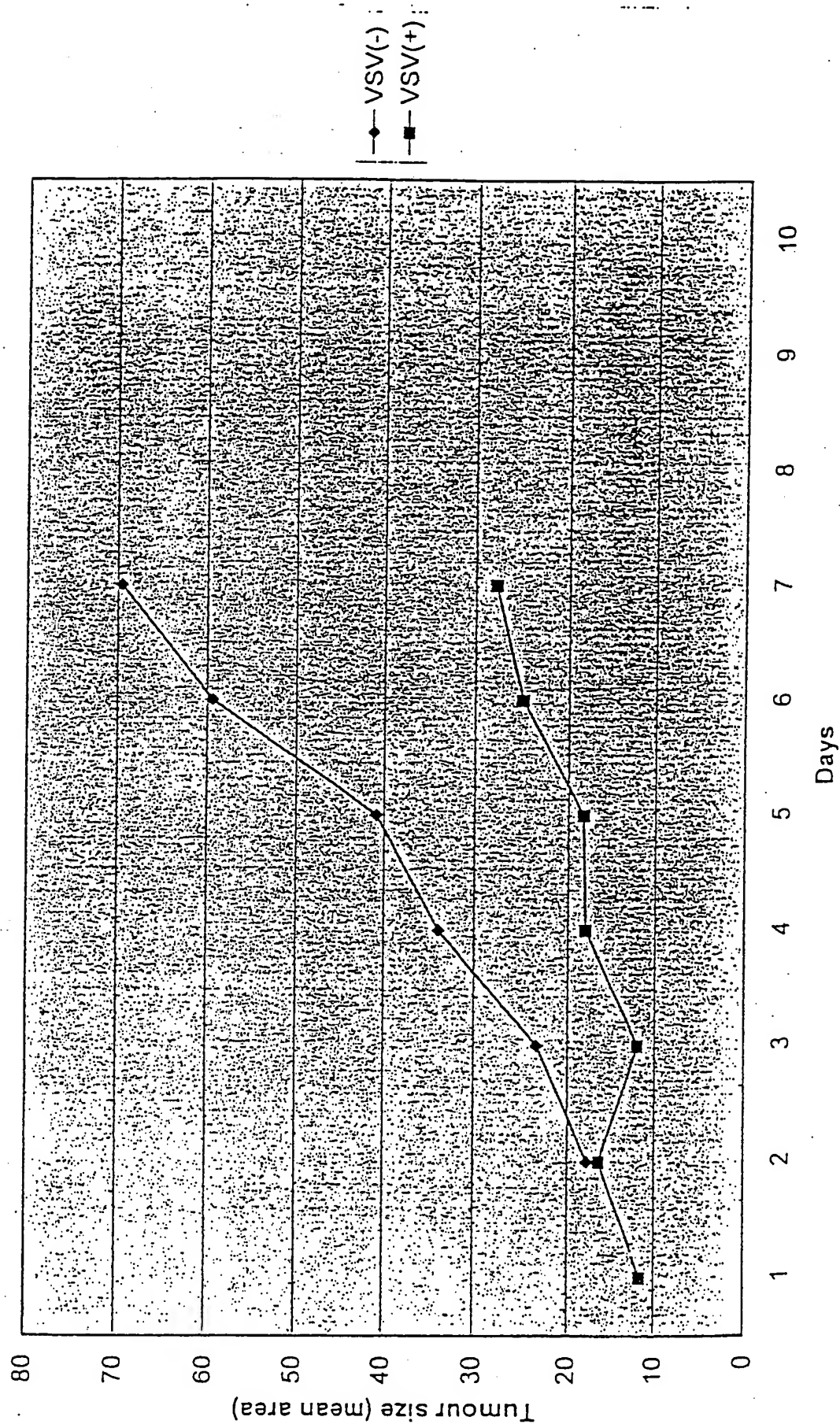


FIGURE 15



FIGURE 6

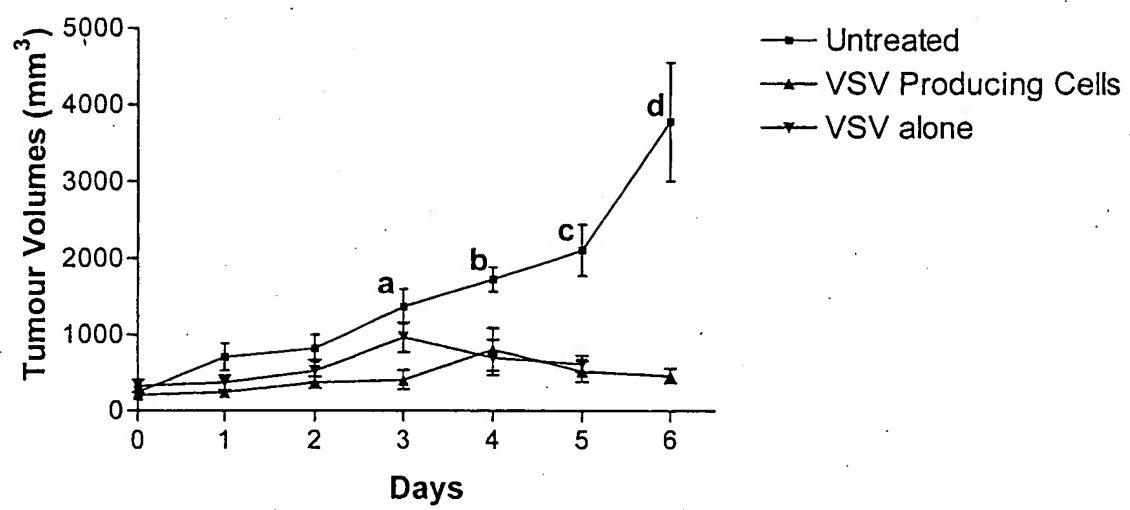
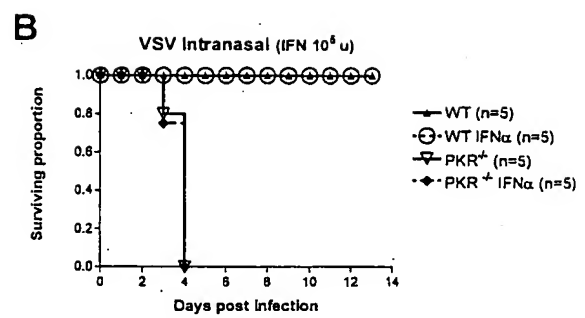
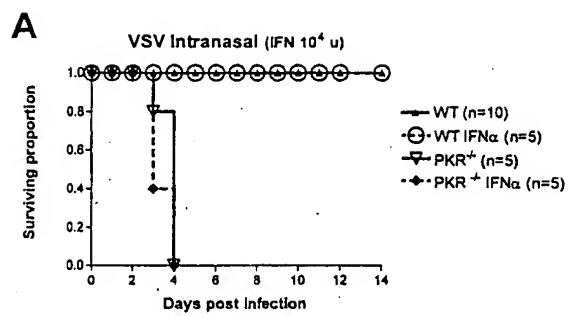


FIGURE 7



FIGURES 8A AND 8B

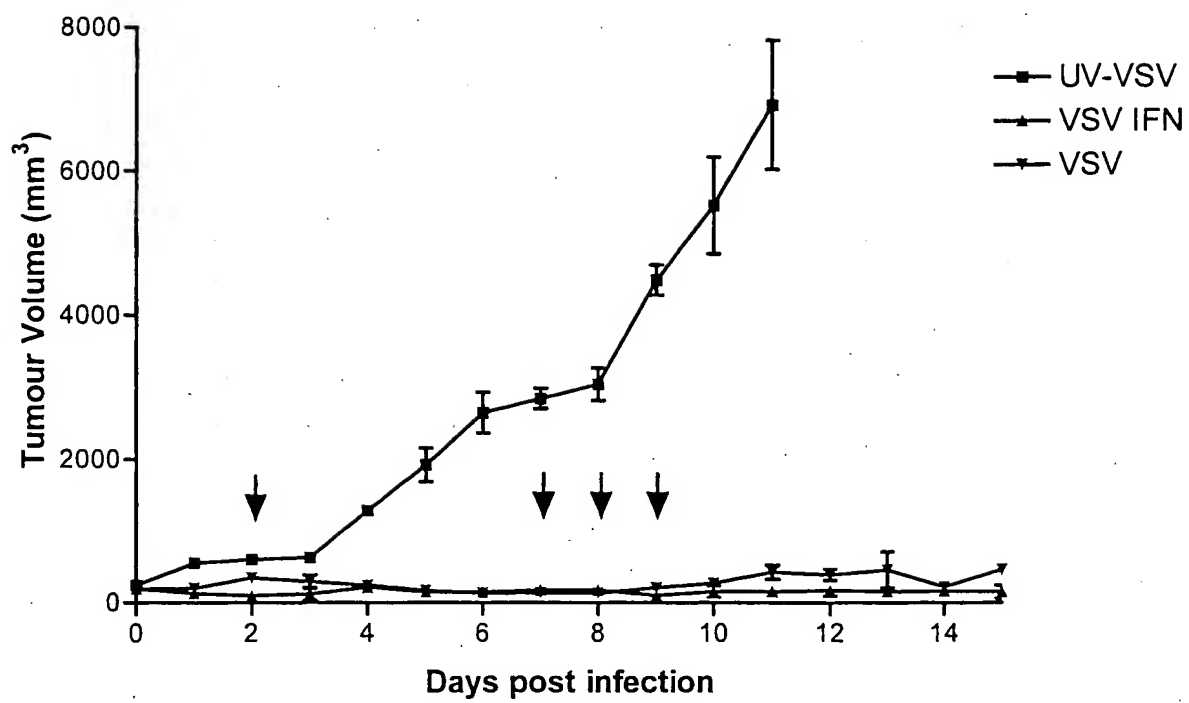


FIGURE 9

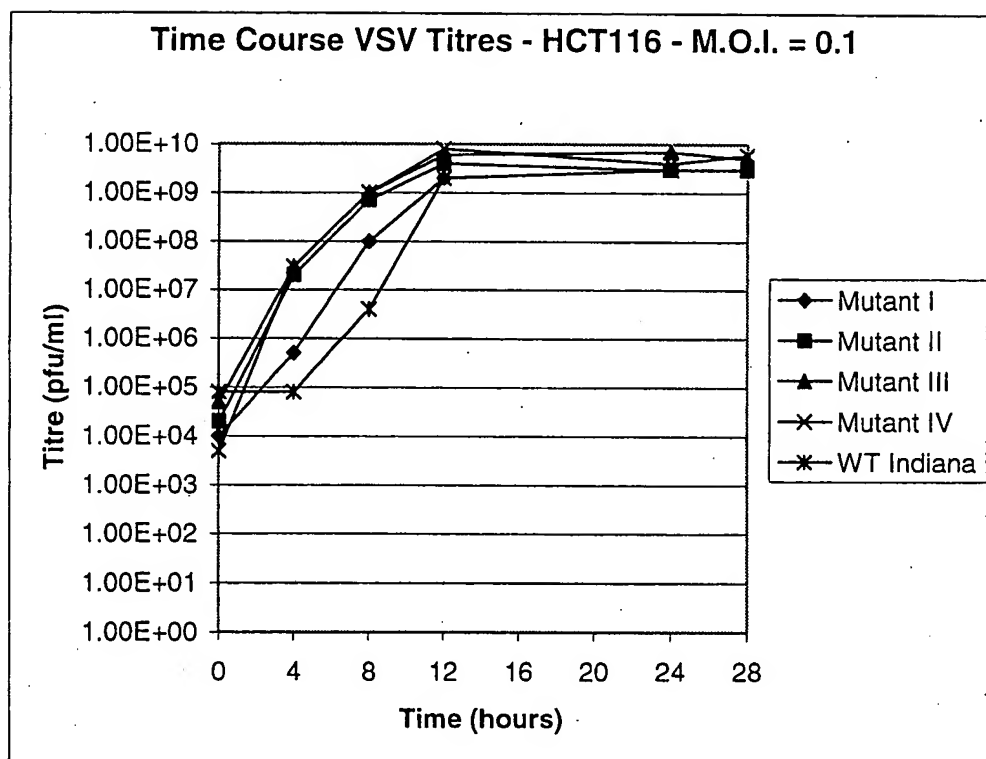


FIGURE 10A

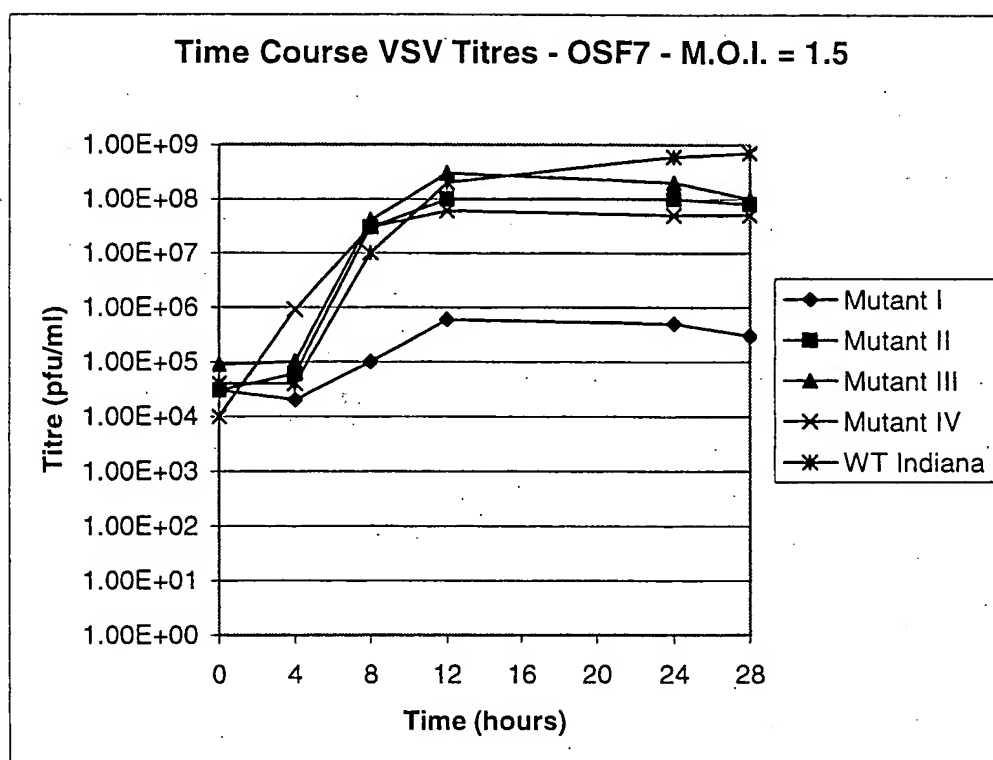


FIGURE 10B

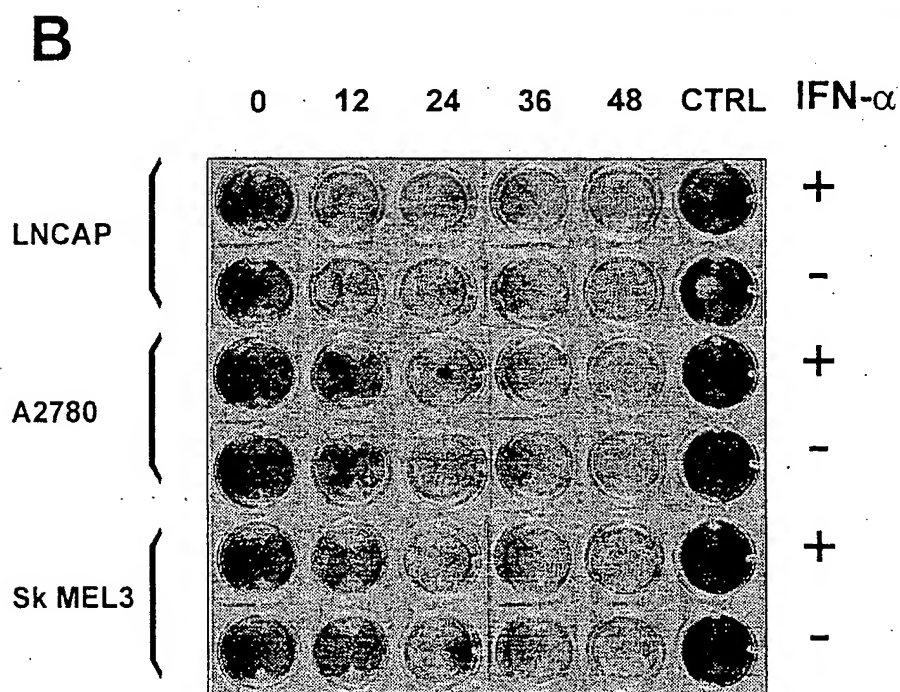
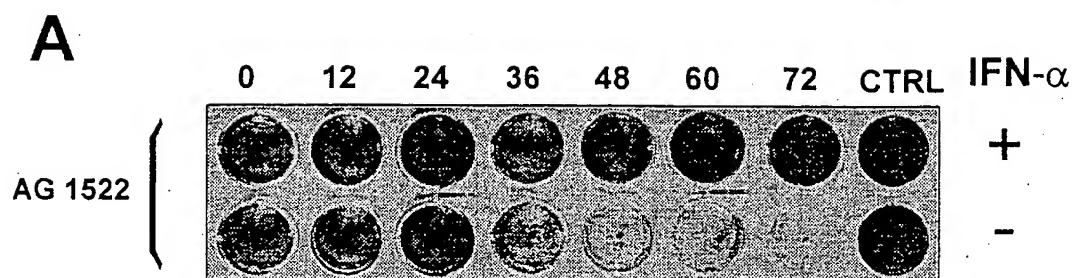


FIGURE 11

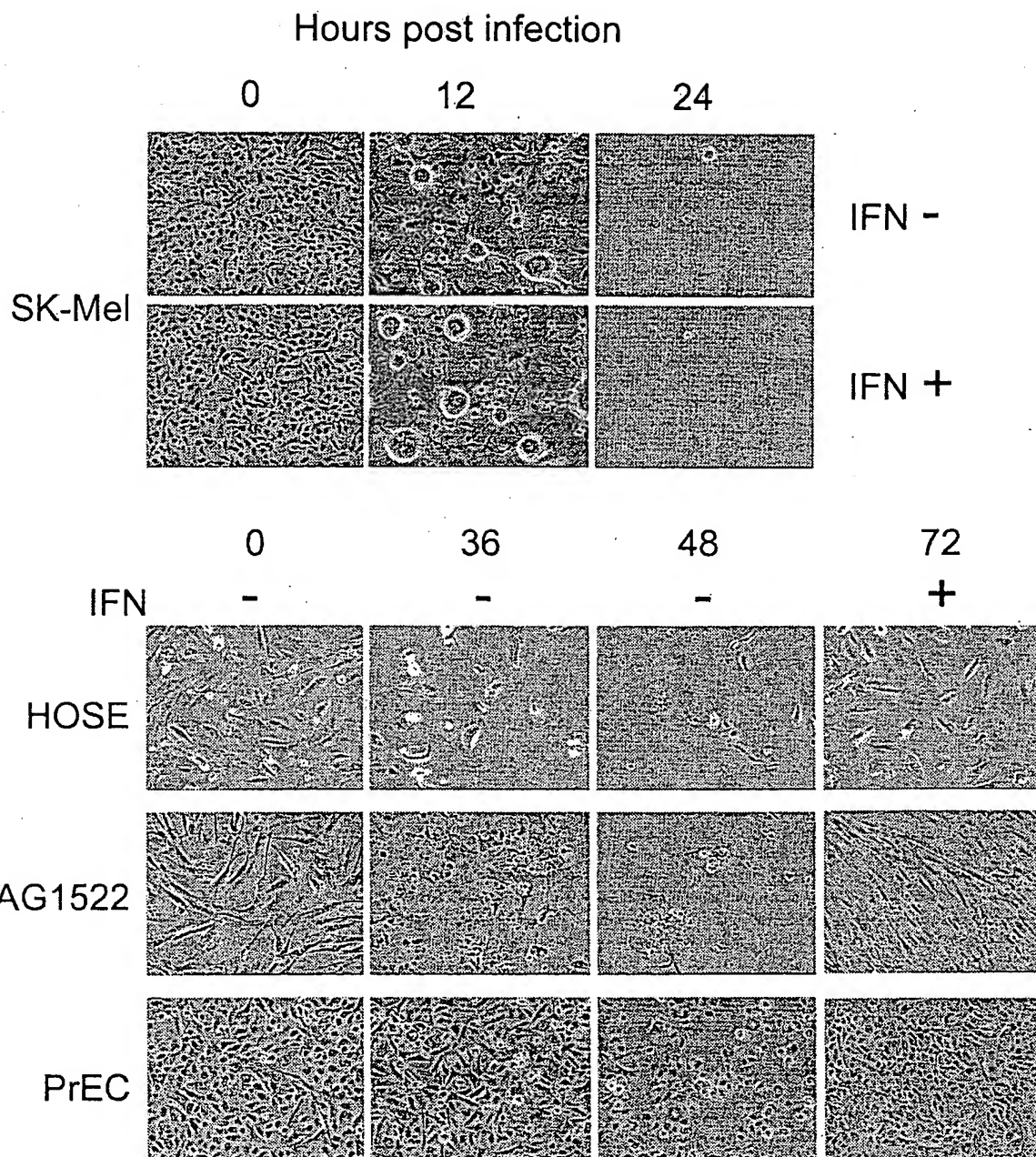


FIGURE 12

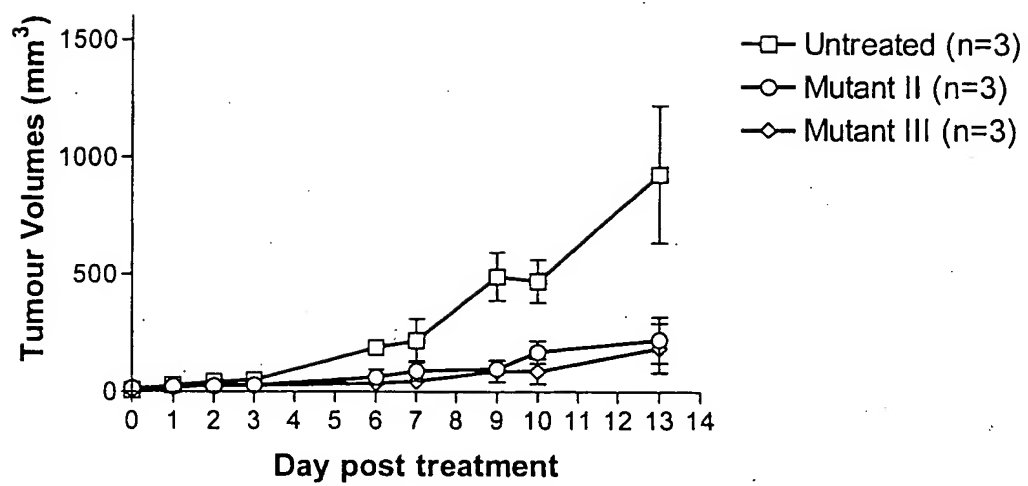


FIGURE 13

		1		60
GenBank	N nucl.	ATGTCTGTTACAGTCAAGAGAATCATTGACAACACAGTCATAGTTCCAAAAC	TTCCCTGCA	
	HR N nucl.	ATGTCTGTTACAGTCAAGAGAATCATTG	CAACACAGTCATAGTTCCAAAAC	TTCCCTGCA
	M2 N nucl.	ATGTCTGTTACAGTCAAGAGAATCATTGACAACACAGTCATAGTTCCAAAAC	TTCCCTGCA	
	M3 N nucl.	ATGTCTGTTACAGTCAAGAGAATCATTGACAACACAGTCATAGTTCCAAAAC	TTCCCTGCA	
	M4 N nucl.	.....	
		61		120
GenBank	N nucl.	AATGAGGATCCAGTGAATACCCGGCAGATTACTTCAGAAAAATCAAAGGAGATT	TCCTCTT	
	HR N nucl.	AATGAGGATCCAGTGAATACCCGGCAGATTACTTCAGAAAAATCAAAGGAGATT	TCCTCTT	
	M2 N nucl.	AATGAGGATCCAGTGAATACCCGGCAGATTACTTCAGAAAAATCAAAGGAGATT	TCCTCTT	
	M3 N nucl.	AATGAGGATCCAGTGAATACCCGGCAGATTACTTCAGAAAAATCAAAGGAGATT	TCCTCTT	
	M4 N nucl.	.....	
		121		180
GenBank	N nucl.	TACATCAATACTACAAAAAGTTTGTCTAGATCTAAGAGGATATGTCTACCAAGGCCTCAA		
	HR N nucl.	TACATCAATACTACAAAAAGTTTGTCTAGATCTAAGAGGATATGTCTACCAAGGCCTCAA		
	M2 N nucl.	TACATCAATACTACAAAAAGTTTGTCTAGATCTAAGAGGATATGTCTACCAAGGCCTCAA		
	M3 N nucl.	TACATCAATACTACAAAAAGTTTGTCTAGATCTAAGAGGATATGTCTACCAAGGCCTCAA		
	M4 N nucl.	.....	
		181		240
GenBank	N nucl.	TCCGGAAATGTATCAATCATACTGTCAACAGCTACTTGTATGGAGCATT	AAGGACATC	
	HR N nucl.	TCCGGAAATGTATCAATCATACTGTCAACAGCTACTTGTATGGAGCATT	AAGGACATC	
	M2 N nucl.	TCCGGAAATGTATCAATCATACTGTCAACAGCTACTTGTATGGAGCATT	AAGGACATC	
	M3 N nucl.	TCCGGAAATGTATCAATCATACTGTCAACAGCTACTTGTATGGAGCATT	AAGGACATC	
	M4 N nucl.	.....TCAATCATACTGTCAACAGCTACTTGTATGGAGCATT	AAGGACATC	
		241		300
GenBank	N nucl.	CGGGGTAAGTTGGATAAAGATTGGTCAAGTTTCGGAATAAACATCGGGAA	GCAGGGGAT	
	HR N nucl.	CGGGGTAAGTTGGATAAAGATTGGTCAAGTTTCGGAATAAACATCGGGAA	GCAGGGGAT	
	M2 N nucl.	CGGGGTAAGTTGGATAAAGATTGGTCAAGTTTCGGAATAAACATCGGGAA	GCAGGGGAT	
	M3 N nucl.	CGGGGTAAGTTGGATAAAGATTGGTCAAGTTTCGGAATAAACATCGGGAA	GCAGGGGAT	
	M4 N nucl.	CGGGGTAAGTTGGATAAAGATTGGTCAAGTTTCGGAATAAACATCGGGAA	GCAGGGGAT	
		301		360
GenBank	N nucl.	ACAATCGGAATATTTGACCTTGTATCCTTGAAAGCCCTGGACGG	GTACTTCCAGATGGA	
	HR N nucl.	ACAATCGGAATATTTGACCTTGTATCCTTGAAAGCCCTGGACGGTGTACTTCCAGATGGA		
	M2 N nucl.	ACAATCGGAATATTTGACCTTGTATCCTTGAAAGCCCTGGACGGTGTACTTCCAGATGGA		
	M3 N nucl.	ACAATCGGAATATTTGACCTTGTATCCTTGAAAGCCCTGGACGGTGTACTTCCAGATGGA		
	M4 N nucl.	ACAATCGGAATATTTGACCTTGTATCCTTGAAAGCCCTGGACGGTGTACTTCCAGATGGA		
		361		420
GenBank	N nucl.	GTATCGGATGCTTCCAGAACCAGCGCAGATGACAAATGGTTGCCTTTGTATCTACTTGGC		
	HR N nucl.	GTATCGGATGCTTCCAGAACCAGCGCAGATGACAAATGGTTGCCTTTGTATCTACTTGGC		
	M2 N nucl.	GTATCGGATGCTTCCAGAACCAGCGCAGATGACAAATGGTTGCCTTTGTATCTACTTGGC		
	M3 N nucl.	GTATCGGATGCTTCCAGAACCAGCGCAGATGACAAATGGTTGCCTTTGTATCTACTTGGC		
	M4 N nucl.	GTATCGGATGCTTCCAGAACCAGCGCAGATGACAAATGGTTGCCTTTGTATCTACTTGGC		
		421		480
GenBank	N nucl.	TTATACAGAGTGGGCAGAACACAAATGCCTGAATACAGAAAAA	GCTCATGGATGGGCTG	
	HR N nucl.	TTATACAGAGTGGGCAGAACACAAATGCCTGAATACAGAAAAAGGCTCATGGATGGGCTG		
	M2 N nucl.	TTATACAGAGTGGGCAGAACACAAATGCCTGAATACAGAAAAAGGCTCATGGATGGGCTG		
	M3 N nucl.	TTATACAGAGTGGGCAGAACACAAATGCCTGAATACAGAAAAAGGCTCATGGATGGGCTG		
	M4 N nucl.	TTATACAGAGTGGGCAGAACACAAATGCCTGAATACAGAAAAAGGCTCATGGATGGGCTG		

FIGURE 14-1

		481	540
GenBank	N nucl.	ACAAATCAATGCAAAATGATCAATGAACAGTTTGAACCTCTTGTGCCAGAAGGTCGTGAC	
	HR N nucl.	ACAAATCAATGCAAAATGATCAATGAACAGTTTGAACCTCTTGTGCCAGAAGGTCGTGAC	
	M2 N nucl.	ACAAATCAATGCAAAATGATCAATGAACAGTTTGAACCTCTTGTGCCAGAAGGTCGTGAC	
	M3 N nucl.	ACAAATCAATGCAAAATGATCAATGAACAGTTTGAACCTCTTGTGCCAGAAGGTCGTGAC	
	M4 N nucl.	ACAAATCAATGCAAAATGATCAATGAACAGTTTGAACCTCTTGTGCCAGAAGGTCGTGAC	
		541	600
GenBank	N nucl.	ATTTTGTGATGTGTGGGGAAATGACAGTAATTACACAAAAATTGTCGCTGCAGTGGACATG	
	HR N nucl.	ATTTTGTGATGTGTGGGGAAATGACAGTAATTACACAAAAATTGTCGCTGCAGTGGACATG	
	M2 N nucl.	ATTTTGTGATGTGTGGGGAAATGACAGTAATTACACAAAAATTGTCGCTGCAGTGGACATG	
	M3 N nucl.	ATTTTGTGATGTGTGGGGAAATGACAGTAATTACACAAAAATTGTCGCTGCAGTGGACATG	
	M4 N nucl.	ATTTTGTGATGTGTGGGGAAATGACAGTAATTACACAAAAATTGTCGCTGCAGTGGACATG	
		601	660
GenBank	N nucl.	TTCTTCCACATGTTCAAAAAACATGAATGTGCCTCGTTTCAGATACGGAACACTATTGTTTCC	
	HR N nucl.	TTCTTCCACATGTTCAAAAAACATGAATGTGCCTCGTTTCAGATACGGAACACTATTGTTTCC	
	M2 N nucl.	TTCTTCCACATGTTCAAAAAACATGAATGTGCCTCGTTTCAGATACGGAACACTATTGTTTCC	
	M3 N nucl.	TTCTTCCACATGTTCAAAAAACATGAATGTGCCTCGTTTCAGATACGGAACACTATTGTTTCC	
	M4 N nucl.	TTCTTCCACATGTTCAAAAAACATGAATGTGCCTCGTTTCAGATACGGAACACTATTGTTTCC	
		661	720
GenBank	N nucl.	AGATTCAAAGATTGTGCTGCATTGGCAACATTTGGACACCTCTGCAAAATAACCGGAATG	
	HR N nucl.	AGATTCAAAGATTGTGCTGCATTGGCAACATTTGGACACCTCTGCAAAATAACCGGAATG	
	M2 N nucl.	AGATTCAAAGATTGTGCTGCATTGGCAACATTTGGACACCTCTGCAAAATAACCGGAATG	
	M3 N nucl.	AGATTCAAAGATTGTGCTGCATTGGCAACATTTGGACACCTCTGCAAAATAACCGGAATG	
	M4 N nucl.	AGATTCAAAGATTGTGCTGCATTGGCAACATTTGGACACCTCTGCAAAATAACCGGAATG	
		721	780
GenBank	N nucl.	TCTACAGAAGATGTAACGACCTGGATCTTGAACCGAGAAGTTGCAGATGAGATGGTCCAA	
	HR N nucl.	TCTACAGAAGATGTAACGACCTGGATCTTGAACCGAGAAGTTGCAGATGAGATGGTCCAA	
	M2 N nucl.	TCTACAGAAGATGTAACGACCTGGATCTTGAACCGAGAAGTTGCAGATGAGATGGTCCAA	
	M3 N nucl.	TCTACAGAAGATGTAACGACCTGGATCTTGAACCGAGAAGTTGCAGATGAGATGGTCCAA	
	M4 N nucl.	TCTACAGAAGATGTAACGACCTGGATCTTGAACCGAGAAGTTGCAGATGAGATGGTCCAA	
		781	840
GenBank	N nucl.	ATGATGCTTCCAGGCCAAGAAATTGACAAGGCCGATTCATACATGCCTTATTTGATCGAC	
	HR N nucl.	ATGATGCTTCCAGGCCAAGAAATTGACAAGGCCGATTCATACATGCCTTATTTGATCGAC	
	M2 N nucl.	ATGATGCTTCCAGGCCAAGAAATTGACAAGGCCGATTCATACATGCCTTATTTGATCGAC	
	M3 N nucl.	ATGATGCTTCCAGGCCAAGAAATTGACAAGGCCGATTCATACATGCCTTATTTGATCGAC	
	M4 N nucl.	ATGATGCTTCCAGGCCAAGAAATTGACAAGGCCGATTCATACATGCCTTATTTGATCGAC	
		841	900
GenBank	N nucl.	TTTGGATTGTCTTCTAAGTCTCCATATTCTTCCGTCAAAAACCCCTGCCTTCCACTTCTGG	
	HR N nucl.	TTTGGATTGTCTTCTAAGTCTCCATATTCTTCCGTCAAAAACCCCTGCCTTCCACTTCTGG	
	M2 N nucl.	TTTGGATTGTCTTCTAAGTCTCCATATTCTTCCGTCAAAAACCCCTGCCTTCCACTTCTGG	
	M3 N nucl.	TTTGGATTGTCTTCTAAGTCTCCATATTCTTCCGTCAAAAACCCCTGCCTTCCACTTCTGG	
	M4 N nucl.	TTTGGATTGTCTTCTAAGTCTCCATATTCTTCCGTCAAAAACCCCTGCCTTCCACTTCTGG	

FIGURE 14-2

		901		960
GenBank	N nucl.	GGGCAATTGACAGCTCTTCTGCTCAGATCCACCAGAGCAAGGAATGCCCCGACAGCCTGAT		
	HR	N nucl.	GGGCAATTGACAGCTCTTCTGCTCAGATCCACCAGAGCAAGGAATGCCCCGACAGCCTGAT	
	M2	N nucl.	GGGCAATTGACAGCTCTTCTGCTCAGATCACCAGAGCAAGGAATGCCCCGACAGCCTGAT	
	M3	N nucl.	GGGCAATTGACAGCTCTTCTGCTCAGATCCACCAGAGCAAGGAATGCCCCGACAGCCTGAT	
	M4	N nucl.	GGGCAATTGAC.....T	
		961		1020
GenBank	N nucl.	GACATTGAGTATACATCTCTTACTACAGCAGGTTTGTGTACGCTTATGCAGTAGGATCC		
	HR	N nucl.	GACATTGAGTATACATCTCTTACTACAGCAGGTTTGTGTACGCTTATGCAGTAGGATCC	
	M2	N nucl.	GACATTGAGTATACATCTCTTACTACAGCAGGTTTGTGTACGCTTATGCAGTAGGATCC	
	M3	N nucl.	GACATTGAGTATACATCTCTTACTACAGCAGGTTTGTGTACGCTTATGCAGTAGGATCC	
	M4	N nucl.	GACATTGAGTATACATCTCTTACTACAGCAGGTTTGTGTACGCTTATGCAGTAGGATCC	
		1021		1080
GenBank	N nucl.	TCTGCTGACTTGGCACAACAGTTTTGTGTTGGAGATACAAATACACTCCAGATGATAGT		
	HR	N nucl.	TCTGCTGACTTGGCACAACAGTTTTGTGTTGGAGATAGCAAATACACTCCAGATGATAGT	
	M2	N nucl.	TCTGCTGACTTGGCACAACAGTTTTGTGTTGGAGATAGCAAATACACTCCAGATGATAGT	
	M3	N nucl.	TCTGCTGACTTGGCACAACAGTTTTGTGTTGGAGATAGCAAATACACTCCAGATGATAGT	
	M4	N nucl.	TCTGCTGACTTGGCACAACAGTTTTGTGTTGGAGATAGCAAATACACTCCAGATGATAGT	
		1081		1140
GenBank	N nucl.	ACCGGAGGATTGACGACTAATGCACCGCCACAAGGCAGAGATGTGGTCGAATGGCTCGGA		
	HR	N nucl.	ACCGGAGGATTGACGACTAATGCACCGCCACAAGGCAGAGATGTGGTCGAATGGCTCGGA	
	M2	N nucl.	ACCGGAGGATTGACGACTAATGCACCGCCACAAGGCAGAGATGTGGTCGAATGGCTCGGA	
	M3	N nucl.	ACCGGAGGATTGACGACTAATGCACCGCCACAAGGCAGAGATGTGGTCGAATGGCTCGGA	
	M4	N nucl.	ACCGGAGGATTGACGACTAATGCACCGCCACAAGGCAGAGATGTGGTCGAATGGCTCGGA	
		1141		1200
GenBank	N nucl.	TGGTTTGAAGATCAAAACAGAAAACCGACTCCTGATATGATGCAGTATGCGAAAAGAGCA		
	HR	N nucl.	TGGTTTGAAGATCAAAACAGAAAACCGACTCCTGATATGATGCAGTATGCGAAAACGAGCA	
	M2	N nucl.	TGGTTTGAAGATCAAAACAGAAAACCGACTCCTGATATGATGCAGTATGCGAAAACGAGCA	
	M3	N nucl.	TGGTTTGAAGATCAAAACAGAAAACCGACTCCTGATATGATGCAGTATGCGAAAACGAGCA	
	M4	N nucl.	TGGTTTGAAGATCAAAACAGAAAACCGACTCCTGATATGATGCAGTATGCGAAAACGAGCA	
		1201		1260
GenBank	N nucl.	GTCATGTCACTGCAAGGCCTAAGAGAGAAGACAATTGGCAAGTATGCTAAGTCAGAATTT		
	HR	N nucl.	GTCATGTCACTGCAAGGCCTAAGAGAGAAGACAATTGGCAAGTATGCTAAGTCAGAATTT	
	M2	N nucl.	GTCATGTCACTGCAAGGCCTAAGAGAGAAGACAATTGGCAAGTATGCTAAGTCAGAATTT	
	M3	N nucl.	GTCATGTCACTGCAAGGCCTAAGAGAGAAGACAATTGGCAAGTATGCTAAGTCAGAATTT	
	M4	N nucl.	GTCATGTCACTGCAAGGCCTAAGAGAGAAGACAATTGGCAAGTATGCTAAGTCAGAATTT	
		1261	1269	
GenBank	N nucl.	GACAAATGA		
	HR	N nucl.	GACAAATGA	
	M2	N nucl.	GACAAATGA	
	M3	N nucl.	GACAAATGA	
	M4	N nucl.	GACAAATGA	

FIGURE 14-3

	1	60
GenBank N a. a.	MSVTVKRIIDNTVIVPKLPANEDPVEYPADYFRKSKEIPLYINTTKSLSDLRGYVYQGLK	
HR N a. a.	MSVTVKRIIDNTVIVPKLPANEDPVEYPADYFRKSKEIPLYINTTKSLSDLRGYVYQGLK	
M3 N a. a.	MSVTVKRIIDNTVIVPKLPANEDPVEYPADYFRKSKEIPLYINTTKSLSDLRGYVYQGLK	
M4 N a. a.	.....
	61	120
GenBank N a. a.	SGNVSIHVN SYLYGALKDIRGKLDKDWSSFGINIGKAGDTIGIFDLVSLKALDGVLPDG	
HR N a. a.	SGNVSIHVN SYLYGALKDIRGKLDKDWSSFGINIGKAGDTIGIFDLVSLKALDGVLPDG	
M3 N a. a.	SGNVSIHVN SYLYGALKDIRGKLDKDWSSFGINIGKAGDTIGIFDLVSLKALDGVLPDG	
M4 N a. a.	....SIIHVN SYLYGALKDIRGKLDKDWSSFGINIGKAGDTIGIFDLVSLKALDGVLPDG	
	121	180
GenBank N a. a.	VSDASRTSADDKWLPLYLLGLYRVGRTQMPEYRKRLMDGLTNQCKMINEQFEPLVPEGRD	
HR N a. a.	VSDASRTSADDKWLPLYLLGLYRVGRTQMPEYRKRLMDGLTNQCKMINEQFEPLVPEGRD	
M3 N a. a.	VSDASRTSADDKWLPLYLLGLYRVGRTQMPEYRKRLMDGLTNQCKMINEQFEPLVPEGRD	
M4 N a. a.	VSDASRTSADDKWLPLYLLGLYRVGRTQMPEYRKRLMDGLTNQCKMINEQFEPLVPEGRD	
	181	240
GenBank N a. a.	IFDVWGND SNYTKIVA AVMFFHMFKKHECASFRYGTIVSRFKDCAALATFGHLCKITGM	
HR N a. a.	IFDVWGND SNYTKIVA AVMFFHMFKKHECASFRYGTIVSRFKDCAALATFGHLCKITGM	
M3 N a. a.	IFDVWGND SNYTKIVA AVMFFHMFKKHECASFRYGTIVSRFKDCAALATFGHLCKITGM	
M4 N a. a.	IFDVWGND SNYTKIVA AVMFFHMFKKHECASFRYGTIVSRFKDCAALATFGHLCKITGM	
	241	300
GenBank N a. a.	STEDVTTWILNREVADEMVMMLPGQEIDKADSYMPYLIDFGLSSKSPYSSVKNPAFHFW	
HR N a. a.	STEDVTTWILNREVADEMVMMLPGQEIDKADSYMPYLIDFGLSSKSPYSSVKNPAFHFW	
M3 N a. a.	STEDVTTWILNREVADEMVMMLPGQEIDKADSYMPYLIDFGLSSKSPYSSVKNPAFHFW	
M4 N a. a.	STEDVTTWILNREVADEMVMMLPGQEIDKADSYMPYLIDFGLSSKSPYSSVKNPAFHFW	
	301	360
GenBank N a. a.	GQLTALLLRSTRARNARQPDDIEYTSLT TAGLLYAYAVGSSADLAQQFCVGDNKYTPDDS	
HR N a. a.	GQLTALLLRSTRARNARQPDDIEYTSLT TAGLLYAYAVGSSADLAQQFCVGD SKYTPDDS	
M3 N a. a.	GQLTALLLRSTRARNARQPDDIEYTSLT TAGLLYAYAVGSSADLAQQFCVGD SKYTPDDS	
M4 N a. a.	GQLT.....DIEYTSLT TAGLLYAYAVGSSADLAQQFCVGD SKYTPDDS	
	361	420
GenBank N a. a.	TGGLTTNAPPQGRDVVEWLGWFE DQNRKPTPDMMQYAKRAVMSLQGLREKTIGKYAKSEF	
HR N a. a.	TGGLTTNAPPQGRDVVEWLGWFE DQNRKPTPDMMQYAKRAVMSLQGLREKTIGKYAKSEF	
M3 N a. a.	TGGLTTNAPPQGRDVVEWLGWFE DQNRKPTPDMMQYAKRAVMSLQGLREKTIGKYAKSEF	
M4 N a. a.	TGGLTTNAPPQGRDVVEWLGWFE DQNRKPTPDMMQYAKRAVMSLQGLREKTIGKYAKSEF	
	421 423	
GenBank N a. a.	DK.	
HR N a. a.	DK.	
M3 N a. a.	DK.	
M4 N a. a.	DK.	

FIGURE 15

		1	60
GenBank	P nucl.	ATGGATAATCTCACAAAAGTTCGTGAGTATCTCAAGTCCTATTCTCGTCTGATCAGGCG	
HR	P nucl.	ATGGATAATCTCACAAAAGTTCGTGAGTATCTCAAGTCCTATTCTCGTCTAGATCAGGCG	
M2	P nucl.	ATGGATAATCTCACAAAAGTTCGTGAGTATCTCAAGTCCTATTCTCGTCTAGATCAGGCG	
M3	P nucl.	ATGGATAATCTCACAAAAGTTCGTGAGTATCTCAAGTCCTATTCTCGTCTAGATCAGGCG	
M4	P nucl.	ATGGATAATCTCACAAAAGTTCGTGAGTATCTCAAGTCCTATTCTCGTCTAGATCAGGCG	
		61	120
GenBank	P nucl.	GTAGGAGAGATAGATGAGATCGAAGCACAAACGAGCTGAAAAGTCCAATTATGAGTTGTTC	
HR	P nucl.	GTAGGAGAGATAGATGAGATCGAAGCACAAACGAGCTGAAAAGTCCAATTATGAGTTGTTC	
M2	P nucl.	GTAGGAGAGATAGATGAGATCGAAGCACAAACGAGCTGAAAAGTCCAATTATGAGTTGTTC	
M3	P nucl.	GTAGGAGAGATAGATGAGATCGAAGCACAAACGAGCTGAAAAGTCCAATTATGAGTTGTTC	
M4	P nucl.	GTAGGAGAGATAGATGAGATCGAAGCACAAACGAGCTGAAAAGTCCAATTATGAGTTGTTC	
		121	180
GenBank	P nucl.	CAAGAGGAGGAGTGGAGAGCATACTAGGCCCTCTTATTTTCAGGCAGCAGATGATTCT	
HR	P nucl.	CAAGAGGACGGAGTGGAGAGCATACTAGGCCCTCTTATTTTCAGGCAGCAGATGATTCT	
M2	P nucl.	CAAGAGGACGGAGTGGAGAGCATACTAGGCCCTCTTATTTTCAGGCAGCAGATGATTCT	
M3	P nucl.	CAAGAGGACGGAGTGGAGAGCATACTAGGCCCTCTTATTTTCAGGCAGCAGATGATTCT	
M4	P nucl.	CAAGAGGACGGAGTGGAGAGCATACTAGGCCCTCTTATTTTCAGGCAGCAGATGATTCT	
		181	240
GenBank	P nucl.	GACACAGAATCTGAACCAGAAATTGAAGACAATCAAGCTTTGTATGCACAGGATCCAGAA	
HR	P nucl.	GACACAGAATCTGAACCAGAAATTGAAGACAATCAAGGCTTGTATGTACCAGATCCGGAA	
M2	P nucl.	GACACAGAATCTGAACCAGAAATTGAAGACAATCAAGGCTTGTATGTACCAGATCCGGAA	
M3	P nucl.	GACACAGAATCTGAACCAGAAATTGAAGACAATCAAGGCTTGTATGTACCAGATCCGGAA	
M4	P nucl.	GACACAGAATCTGAACCAGAAATTGAAGACAATCAAGGCTTGTATGTACCAGATCCGGAA	
		241	300
GenBank	P nucl.	GCTGAGCAAGTTGAAGGCTTTATACAGGGGCCCTTTAGATGACTATGCGGATGAGGACGTG	
HR	P nucl.	GCTGAGCAAGTTGAAGGCTTTATACAGGGGCCCTTTAGATGACTATGCGGATGAGGACGTG	
M2	P nucl.	GCTGAGCAAGTTGAAGGCTTTATACAGGGGCCCTTTAGATGACTATGCGGATGAGGACGTG	
M3	P nucl.	GCTGAGCAAGTTGAAGGCTTTATACAGGGGCCCTTTAGATGACTATGCGGATGAGGACGTG	
M4	P nucl.	GCTGAGCAAGTTGAAGGCTTTATACAGGGGCCCTTTAGATGACTATGCGGATGAGGACGTG	
		301	360
GenBank	P nucl.	GATGTTGTATTCACTTCGGACTGGAAACAGCCTGAGCTTGAATCCGACGAGCATGGAAAG	
HR	P nucl.	GATGTTGTATTCACTTCGGACTGGAAACAGCCTGAGCTTGAATCCGACGAGCATGGAAAG	
M2	P nucl.	GATGTTGTATTCACTTCGGACTGGAAACAGCCTGAGCTTGAATCCGACGAGCATGGAAAG	
M3	P nucl.	GATGTTGTATTCACTTCGGACTGGAAACAGCCTGAGCTTGAATCCGACGAGCATGGAAAG	
M4	P nucl.	GATGTTGTATTCACTTCGGACTGGAAACAGCCTGAGCTTGAATCCGACGAGCATGGAAAG	
		361	420
GenBank	P nucl.	ACCTTACGGTTGACATTGCCAGAGGGTTTAAGTGGAGAGCAGAAATCCCAGTGGCTTTTG	
HR	P nucl.	ACCTTACGGTTGACATTGCCAGAGGGTTTAAGTGGAGAGCAGAAATCCCAGTGGCTTTTG	
M2	P nucl.	ACCTTACGGTTGACATTGCCAGAGGGTTTAAGTGGAGAGCAGAAATCCCAGTGGCTTTTG	
M3	P nucl.	ACCTTACGGTTGACATTGCCAGAGGGTTTAAGTGGAGAGCAGAAATCCCAGTGGCTTTTG	
M4	P nucl.	ACCTTACGGTTGACATTGCCAGAGGGTTTAAGTGGAGAGCAGAAATCCCAGTGGCTTTTG	

FIGURE 16-1

421 480
GenBank P nucl. ACGATTAAAGCAGTCGTTCAAAGTGCCAAACTGGAATCTGGCAGAGTGCACATTTGAA
HR P nucl. ACGATTAAAGCAGTCGTTCAAAGTGCCAAACACTGGAATCTGGCAGAGTGCACATTTGAA
M2 P nucl. ACGATTAAAGCAGTCGTTCAAAGTGCCAAACACTGGAATCTGGCAGAGTGCACATTTGAA
M3 P nucl. ACGATTAAAGCAGTCGTTCAAAGTGCCAAACACTGGAATCTGGCAGAGTGCACATTTGAA
M4 P nucl. ACGATTAAAGCAGTCGTTCAAAGTGCCAAACACTGGAATCTGGCAGAGTGCACATTTGAA

481 540
GenBank P nucl. GCATCGGGAGAAGGGGTCATGATCAAAGCGCCAGATAACTCCGGATGTATATAAGGTC
HR P nucl. GCATCGGGAGAAGGGGTCATCATAAAAAAGCGCCAGATAACTCCGGATGTATATAAGGTC
M2 P nucl. GCATCGGGAGAAGGGGTCATCATAAAAAAGCGCCAGATAACTCCGGATGTATATAAGGTC
M3 P nucl. GCATCGGGAGAAGGGGTCATCATAAAAAAGCGCCAGATAACTCCGGATGTATATAAGGTC
M4 P nucl. GCATCGGGAGAAGGGGTCATCATAAAAAAGCGCCAGATAACTCCGGATGTATATAAGGTC

541 600
GenBank P nucl. ACTCCAGTGATGAACACACATCCGTCCCAATCAGAAGCGATATCAGATGTTTGGTCTCTC
HR P nucl. ACTCCAGTGATGAACACACATCCGTCCCAATCAGAAGCCGTATCAGATGTTTGGTCTCTC
M2 P nucl. ACTCCAGTGATGAACACACATCCGTCCCA.....
M3 P nucl. ACTCCAGTGATGAACACACATCCGTCCCAATCGAAGCCGTATCAGATGTTTGGTCTCTC
M4 P nucl. ACTCCAGTGATGAACACACATCCGTCCCAATCAGAAGCCGTATCAGATGTTTGGTCTCTC

601 660
GenBank P nucl. TCAAAGACATCCATGACTTTCCAACCCAAGAAAGCAAGTCTTCAGCCTCTCACCATATCC
HR P nucl. TCAAAGACATCCATGACTTTCCAACCCAAGAAAGCAAGTCTTCAGCCTCTCACCATATCC
M2 P nucl.
M3 P nucl. TCAAAGACATCCATGACTTTCCAACCCAAGAAAGCAAGTCTTCAGCCTCTCACCATATCC
M4 P nucl. TCAAAGACATCCATGACTTTCCAACCCAAGAAAGCAAGTCTTCAGCCTCTCACCATATCC

661 720
GenBank P nucl. TTGGATGAATTGTTCTCATCTAGAGGAGAACTTCATCTCTGTCTCGGAGGTACGGACGAATG
HR P nucl. TTGGATGAATTGTTCTCATCTAGAGGAGAAATTCATCTCTGTCTCGGAGGTAACGGACGAATG
M2 P nucl.
M3 P nucl. TTGGATGAATTGTTCTCATCTAGAGGAGAAATTCATCTCTGTCTCGGAGGTAACGGACGAATG
M4 P nucl. TTGGATGAATTGTTCTCATCTAGAGGAGAAATTCATCTCTGTCTCGGAGGTAACGGACGAATG

721 780
GenBank P nucl. TCTCATAAAGAGGCCATCCTGCTCGGCTGAGATACAAAAAGTTGTACAATCAGGCGAGA
HR P nucl. TCTCATAAAGAGGCCATCCTGCTCGGCTGAGGTACAAAAAGTTGTACAATCAGGCGAGA
M2 P nucl.
M3 P nucl. TCTCATAAAGAGGCCATCCTGCTCGGCTGAGGTACAAAAAGTTGTACAATCAGGCGAGA
M4 P nucl. TCTCATAAAGAGGCCATCCTGCTCGGCTGAGGTACAAAAAGTTGTACAATCAGGCGAGA

781 798
GenBank P nucl. GTCAAATATTCTCTGTAG
HR P nucl. GTCAAATATTCTCTGTAG
M2 P nucl.
M3 P nucl. GTCAAATATTCTCTGTAG
M4 P nucl. GTCAAATATTCTCTGTAG

FIGURE 16-2

		1	60
GenBank	M nucl.	ATGAGTTCCTTAAAGAAGATTCTCGGTCTGAAGGGGAAAGGTAAGAAATCTAAGAAATTA	
HR	M nucl.	ATGAGTTCCTTAAAGAAGATTCTCGGTCTGAAGGGGAAAGGTAAGAAATCTAAGAAATTA	
M3	M nucl.	ATGAGTTCCTTAAAGAAGATTCTCGGTCTGAAGGGGAAAGGTAAGAAATCTAAGAAATTA	
M4	M nucl.	ATGAGTTCCTTAAAGAAGATTCTCGGTCTGAAGGGGAAAGGTAAGAAATCTAAGAAATTA	
		61	120
GenBank	M nucl.	GGGATCGCACCACCCCTTATGAAGAGGACACTA ⁶ CATGGAGTATGCTCCGAGCGCTCCA	
HR	M nucl.	GGGATCGCACCACCCCTTATGAAGAGGACACTAACATGGAGTATGCTCCGAGCGCTCCA	
M3	M nucl.	GGGATCGCACCACCCCTTATGAAGAGGACACTAACATGGAGTATGCTCCGAGCGCTCCA	
M4	M nucl.	GGGATCGCACCACCCCTTATGAAGAGGACACTAACATGGAGTATGCTCCGAGCGCTCCA	
		121	180
GenBank	M nucl.	ATTGACAAATCCTATTTTGGAGTTGACGAGATGGACAC ¹²¹ ATGATCCG ¹²¹ ATCAATTAAGA	
HR	M nucl.	ATTGACAAATCCTATTTTGGAGTTGACGAGATGGACACTCATGATCCGCATCAATTAAGA	
M3	M nucl.	ATTGACAAATCCTATTTTGGAGTTGACGAGAG ¹²¹ GGACACTCATGATCCGCATCAATTAAGA	
M4	M nucl.	ATTGACAAATCCTATTTTGGAGTTGACGAGATGGACACTCATGATCCGCATCAATTAAGA	
		181	240
GenBank	M nucl.	TATGAGAAATTCCTTCTTTACAGTGAAAAATGACGGTTAGATCTAATCGTCCGTTTCAAGAACA	
HR	M nucl.	TATGAGAAATTCCTTCTTTACAGTGAAAAATGACGGTTAGATCTAATCGTCCGTTTCAAGAACA	
M3	M nucl.	TATGAGAAATTCCTTCTTTACAGTGAAAAATGACGGTTAGATCTAATCGTCCGTTTCAAGAACA	
M4	M nucl.	TATGAGAAATTCCTTCTTTACAGTGAAAAATGACGGTTAGATCTAATCGTCCGTTTCAAGAACA	
		241	300
GenBank	M nucl.	TACTCAGATGTGGCAGCCGCTGTATCCCATTGGGATCACATGTACATCGGAATGGCAGGG	
HR	M nucl.	TACTCAGATGTGGCAGCCGCTGTATCCCATTGGGATCACATGTACATCGGAATGGCAGGG	
M3	M nucl.	TACTCAGATGTGGCAGCCGCTGTATCCCATTGGGATCACATGTACATCGGAATGGCAGGG	
M4	M nucl.	TACTCAGATGTGGCAGCCGCTGTATCCCATTGGGATCACATGTACATCGGAATGGCAGGG	
		301	360
GenBank	M nucl.	AAACGTCCCTTCTACAA ³⁰¹ ATCTTGGCTTTTTTTGGGTTCTTCTAATCTAAAGGCCACTCCA	
HR	M nucl.	AAACGTCCCTTCTACAGATCTTGGCTTTTTTTGGGTTCTTCTAATCTAAAGGCCACTCCA	
M3	M nucl.	AAACGTCCCTTCTACAGATCTTGGCTTTTTTTGGGTTCTTCTAATCTAAAGGCCACTCCA	
M4	M nucl.	AAACGTCCCTTCTACAGATCTTGGCTTTTTTTGGGTTCTTCTAATCTAAAGGCCACTCCA	
		361	420
GenBank	M nucl.	GCGGTATTGGCAGATCAAGGTCAACCAGAGTATCAC ³⁶¹ CTCACTG ³⁶¹ GAAGGCAGGGCTTAT	
HR	M nucl.	GCGGTATTGGCAGATCAAGGTCAACCAGAGTATCACGCTCACTGTGAAGGCAGGGCTTAT	
M3	M nucl.	GCGGTATTGGCAGATCAAGGTCAACCAGAGTATCACGCTCACTGTGAAGGCAGGGCTTAT	
M4	M nucl.	GCGGTATTGGCAGATCAAGGTCAACCAGAGTATCA ³⁶¹ CGCTCACTGTGAAGGCAGGGCTTAT	
		421	480
GenBank	M nucl.	TTGCCACA ⁴²¹ TAG ⁴²¹ CATGGGGAAGACCCCTCCCATGCTCAATGTACCAGAGCACTTCAGAAGA	
HR	M nucl.	TTGCCACACAGAATGGGGAAGACCCCTCCCATGCTCAATGTACCAGAGCACTTCAGAAGA	
M3	M nucl.	TTGCCACACAGAATGGGGAAGACCCCTCCCATGCTCAATGTACCAGAGCACTTCAGAAGA	
M4	M nucl.	TTGCCACACAGAATGGGGAAGACCCCTCCCATGCTCAATGTACCAGAGCACTTCAGAAGA	
		481	540
GenBank	M nucl.	CCATTCAATATAGGTCTTTTACAAGGGAACG ⁴⁸¹ ATTGAGCTCACAATGACCATCTACGATGAT	
HR	M nucl.	CCATTCAATATAGGTCTTTTACAAGGGAACGGTTGAGCTCACAATGACCATCTACGATGAT	
M3	M nucl.	CCATTCAATATAGGTCTTTTACAAGGGAACGGTTGAGCTCACAATGACCATCTACGATGAT	
M4	M nucl.	CCATTCAATATAGGTCTTTTACAAGGGAACGGTTGAGCTCACAATGACCATCTACGATGAT	

FIGURE 18-1

		541		600
GenBank	M nucl.	GAGTCACTGGAAGCAGCTCCTATGATCTGGGATCATTTC	AATTCTTCCAAATTTTCTGAT	
	HR	M nucl.	GAGTCACTGGAAGCAGCTCCTATGATCTGGGATCATTTC	AATTCTTCCAAATTTTCTGAT
	M3	M nucl.	GAGTCACTGGAAGCAGCTCCTATGATCTGGGATCATTTC	AATTCTTCCAAATTTTCTGAT
	M4	M nucl.	GAGTCACTGGAAGCAGCTCCTATGATCTGGGATCATTTC	AATTCTTCCAAATTTTCTGAT
		601		660
GenBank	M nucl.	TTCAGAGAGAAGGCCTTAATGTTTGGCCTGATTGTCGAGAAAAAGGCATCTGGAGC	CTGG	
	HR	M nucl.	TTCAGAGAGAAGGCCTTAATGTTTGGCCTGATTGTCGAGAAAAAGGCATCTGGAGCTTGG	
	M3	M nucl.	TTCAGAGAGAAGGCCTTAATGTTTGGCCTGATTGTCGAGAAAAAGGCATCTGGAGCTTGG	
	M4	M nucl.	TTCAGAGAGAAGGCCTTAATGTTTGGCCTGATTGTCGAGAAAAAGGCATCTGGAGCTTGG	
		661		690
GenBank	M nucl.	GTCCTGGATTCTGTCAGCCACTTCAAATGA		
	HR	M nucl.	GTCCTGGATTCTGTCAGCCACTTCAAATGA	
	M3	M nucl.	GTCCTGGATTCTGTCAGCCACTTCAAATGA	
	M4	M nucl.	GTCCTGGATTCTGTCAGCCACTTCAAATGA	

FIGURE 18-2

	1		60
GenBank M a.a.	MSSLKKILGLKGKGKSSKKLGIAPPPYEEDT	SMEYAPSAPIDKSYFGVDEMDT	YDPNQLR
HR M a.a.	MSSLKKILGLKGKGKSSKKLGIAPPPYEEDT	NMEYAPSAPIDKSYFGVDEMDTHDPHQLR	
M4 M a.a.	MSSLKKILGLKGKGKSSKKLGIAPPPYEEDT	NMEYAPSAPIDKSYFGVDEMDTHDPHQLR	
M3 M a.a.	MSSLKKILGLKGKGKSSKKLGIAPPPYEEDT	NMEYAPSAPIDKSYFGVDE	RDTHDPHQLR
	61		120
GenBank M a.a.	YEKFFFTVKMTVRSNRPFRTYSDVAAAVSHWDHMYIGMAGKRPFYKILAFLGSSNLKATP		
HR M a.a.	YEKFFFTVKMTVRSNRPFRTYSDVAAAVSHWDHMYIGMAGKRPFYKILAFLGSSNLKATP		
M4 M a.a.	YEKFFFTVKMTVRSNRPFRTYSDVAAAVSHWDHMYIGMAGKRPFYKILAFLGSSNLKATP		
M3 M a.a.	YEKFFFTVKMTVRSNRPFRTYSDVAAAVSHWDHMYIGMAGKRPFYKILAFLGSSNLKATP		
	121		180
GenBank M a.a.	AVLADQGGQPEYH	HCEGRAYLPHRMGKTPPMLNVPEHFRFPFNIGLYKGT	ELTMTIYDD
HR M a.a.	AVLADQGGQPEYHAHCEGRAYLPHRMGKTPPMLNVPEHFRFPFNIGLYKGTVELTMTIYDD		
M4 M a.a.	AVLADQGGQPEYHAHCEGRAYLPHRMGKTPPMLNVPEHFRFPFNIGLYKGTVELTMTIYDD		
M3 M a.a.	AVLADQGGQPEYHAHCEGRAYLPHRMGKTPPMLNVPEHFRFPFNIGLYKGTVELTMTIYDD		
	181		230
GenBank M a.a.	ESLEAAPMIWDHFNSSKFSDFREKALMFGLIVEKKASGAWVLD	S	SHFK.
HR M a.a.	ESLEAAPMIWDHFNSSKFSDFREKALMFGLIVEKKASGAWVLD	SVSHFK.	
M4 M a.a.	ESLEAAPMIWDHFNSSKFSDFREKALMFGLIVEKKASGAWVLD	SVSHFK.	
M3 M a.a.	ESLEAAPMIWDHFNSSKFSDFREKALMFGLIVEKKASGAWVLD	SVSHFK.	

FIGURE 19

		1		60
GenBank	G	nucl.	ATGAAGTGCCTTTTGTACTTAGCCTTTTTATTTCATGGGGTGAATTGCAAGTTCACCATA	
HR	G	nucl.	ATGAAGTGCCTTTTGTACTTAGCCTTTTTATTTCATCGGGGTGAATTGCAAGTTCACCATA	
M2	G	nucl.	.....
M3	G	nucl.	ATGAAGTGCCTTTTGTACTTAGCCTTTTTATTTCATCGGGGTGAATTGCAAGTTCACCATA	
M4	G	nucl.	ATGAAGTGCCTTTTGTACTTAGCCTTTTTATTTCATCGGGGTGAATTGCAAGTTCACCATA	
		61		120
GenBank	G	nucl.	GTTTTTCCAACAACCAAAAAGGAAACTGGAAAAATGTTCCCTTCAATTACCATTATTGC	
HR	G	nucl.	GTTTTTCCATACAACCAAAAAGGAAACTGGAAAAATGTTCCCTTCCAATTACCATTATTGC	
M2	G	nucl.	.....
M3	G	nucl.	GTTTTTCCATACAACCAAAAAGGAAACTGGAAAAATGTTCCCTTCCAATTACCATTATTGC	
M4	G	nucl.	GTTTTTCCATACAACCAAAAAGGAAACTGGAAAAATGTTCCCTTCCAATTACCATTATTGC	
		121		180
GenBank	G	nucl.	CCGTCAAGCTCAGATTTAAATTGGCATAATGACTTAATAGGCACAGCCCTACAAGTCAAA	
HR	G	nucl.	CCGTCAAGCTCAGATTTAAATTGGCATAATGACTTAATAGGCACAGCCCTACAAGTCAAA	
M2	G	nucl.	.....
M3	G	nucl.	CCGTCAAGCTCAGATTTAAATTGGCATAATGACTTAATAGGCACAGCCCTACAAGTCAAA	
M4	G	nucl.	CCGTCAAGCTCAGATTTAAATTGGCATAATGACTTAATAGGCACAGCCCTACAAGTCAAA	
		181		240
GenBank	G	nucl.	ATGCCCCAAGAGTCACAAGGCTATTCAAGCAGACGGTTGGATGTGTCATGCTTCCAAATGG	
HR	G	nucl.	ATGCCCCAAGAGTCACAAGGCTATTCAAGCAGACGGTTGGATGTGTCATGCTTCCAAATGG	
M2	G	nucl.	.....
M3	G	nucl.	ATGCCCCAAGAGTCACAAGGCTATTCAAGCAGACGGTTGGATGTGTCATGCTTCCAAATGG	
M4	G	nucl.	ATGCCCCAAGAGTCACAAGGCTATTCAAGCAGACGGTTGGATGTGTCATGCTTCCAAATGG	
		241		300
GenBank	G	nucl.	GTCACTACTTGTGATTTCCGCTGGTATGGACCGAAGTATATAACACAATCCATCCGATCC	
HR	G	nucl.	GTCACTACTTGTGATTTCCGCTGGTACGGACCGAAGTATATAACACATTCATCCGATCC	
M2	G	nucl.	.....
M3	G	nucl.	GTCACTACTTGTGATTTCCGCTGGTACGGACCGAAGTATATAACACATTCATCCGATCC	
M4	G	nucl.	GTCACTACTTGTGATTTCCGCTGGTACGGACCGAAGTATATAACACATTCATCCGATCC	
		301		360
GenBank	G	nucl.	TTCACTCCATCTGTAGAACAATGCAAGGAAAGCATTGAACAAACGAAACAAGGAACCTGG	
HR	G	nucl.	TTCACTCCATCTGTAGAACAATGCAAGGAAAGCATTGAACAAACGAAACAAGGAACCTGG	
M2	G	nucl.	.....
M3	G	nucl.	TTCACTCCATCTGTAGAACAATGCAAGGAAAGCATTGAACAAACGAAACAAGGAACCTGG	
M4	G	nucl.	TTCACTCCATCTGTAGAACAATGCAAGGAAAGCATTGAACAAACGAAACAAGGAACCTGG	
		361		420
GenBank	G	nucl.	CTGAATCCAGGCTTCCCTCCTCAAAGTTGTGGATATGCAACTGTGACGGATGCTGAAGCA	
HR	G	nucl.	CTGAATCCAGGCTTCCCTCCTCAAAGTTGTGGATATGCAACTGTGACGGATGCTGAAGCA	
M2	G	nucl.	.....
M3	G	nucl.	CTGAATCCAGGCTTCCCTCCTCAAAGTTGTGGATATGCAACTGTGACGGATGCTGAAGCA	
M4	G	nucl.	CTGAATCCAGGCTTCCCTCCTCAAAGTTGTGGATATGCAACTGTGACGGATGCTGAAGCA	
		421		480
GenBank	G	nucl.	GATTGTCCAGGTGACTCCTCACCATGTGCTGTTGATGAATACACAGGAGAATGGGTT	
HR	G	nucl.	GCGATTGTCCAGGTGACTCCTCACCATGTGCTTGTGATGAATACACAGGAGAATGGGTT	
M2	G	nucl.	.....
M3	G	nucl.	GCGATTGTCCAGGTGACTCCTCACCATGTGCTTGTGATGAATACACAGGAGAATGGGTT	
M4	G	nucl.	GCGATTGTCCAGGTGACTCCTCACCATGTGCTTGTGATGAATACACAGGAGAATGGGTT	

FIGURE 20-1

481 540

GenBank G nucl. GATTTCACAGTTCATCAACGGAAAATGCAGCAATACATATGCCCCACTGTCCATAACTCC

HR G nucl. GATTTCACAGTTCATCAACGGAAAATGCAGCAATGACATATGCCCCACTGTCCATAACTCC

M2 G nucl.

M3 G nucl. GATTTCACAGTTCATCAACGGAAAATGCAGCAATGACATATGCCCCACTGTCCATAACTCC

M4 G nucl. GATTTCACAGTTCATCAACGGAAAATGCAGCAATGACATATGCCCCACTGTCCATAACTCC

541 600

GenBank G nucl. ACAACCTGGCATTCTGACTATAAGGTCAAAGGGCTATGTGATTCTAACCTCATTTCATG

HR G nucl. ACAACCTGGCATTCTCGACTATAAGGTCAAAGGGCTATGTGATTCTAACCTCATTTCATG

M2 G nucl.

M3 G nucl. ACAACCTGGCATTCTCGACTATAAGGTCAAAGGGCTATGTGATTCTAACCTCATTTCATG

M4 G nucl. ACAACCTGGCATTCTCGACTATAAGGTCAAAGGGCTATGTGATTCTAACCTCATTTCATG

601 660

GenBank G nucl. GACATCACCTTCTTCTCAGAGGACGGAGAGCTATCATCCCTGGAAAGGAGGGCACAGGG

HR G nucl. GACATCACCTTCTTCTCAGAGGACGGAGAGCTATCATCCCTAGGAAAGGAGGGCACAGGG

M2 G nucl.

M3 G nucl. GACATCACCTTCTTCTCAGAGGACGGAGAGCTATCATCCCTAGGAAAGGAGGGCACAGGG

M4 G nucl. GACATCACCTTCTTCTCAGAGGACGGAGAGCTATCATCCCTAGGAAAGGAGGGCACAGGG

661 720

GenBank G nucl. TTCAGAAGTAACTACTTTGCTTATGAAACTGGAGCAAGGCCTGCAAAATGCAATACTGC

HR G nucl. TTCAGAAGTAACTACTTTGCTTATGAAACTGGAGACAAGGCCTGCAAAATGCAGTACTGC

M2 G nucl.

M3 G nucl. TTCAGAAGTAACTACTTTGCTTATGAAACTGGAGACAAGGCCTGCAAAATGCAGTACTGC

M4 G nucl. TTCAGAAGTAACTACTTTGCTTATGAAACTGGAGACAAGGCCTGCAAAATGCAGTACTGC

721 780

GenBank G nucl. AAGCAATTGGGGAGTCAGACTCCCATCAGGTGTCTGGTTCGAGATGGCTGATAAGGATCTC

HR G nucl. AAGCGTTGGGGAGTCAGACTCCCATCAGGTGTCTGGTTCGAGATGGCTGATAAGGATCTC

M2 G nucl.

M3 G nucl. AAGCAATTGGGGAGTCAGACTCCCATCAGGTGTCTGGTTCGAGATGGCTGATAAGGATCTC

M4 G nucl. AAGCGTTGGGGAGTCAGACTCCCATCAGGTGTCTGGTTCGATGGCTGATAAGGATCTC

781 840

GenBank G nucl. TTTGCTGCAGCCAGATTCCCTGAATGCCCAGAAGGGTCAAGTATCTCTGCTCCATCTCAG

HR G nucl. TTTGCTGCAGCCAGATTCCCTGAATGCCCAGAAGGGTCAAGTATCTCTGCTCCATCTCAG

M2 G nucl. CCATCTCAG

M3 G nucl. TTTGCTGCAGCCAGATTCCCTGAATGCCCAGAAGGGTCAAGTATCTCTGCTCCATCTCAG

M4 G nucl. TTTGCTGCAGCCAGATTCCCTGAATGCCCAGAAGGGTCAAGTATCTCTGCTCCATCTCAG

841 900

GenBank G nucl. ACCTCAGTGGATGTAAGTCTATTTCAGGACGTTGAGAGGATCTTGGATTATTCCCTCTGC

HR G nucl. ACCTCAGTGGATGTAAGTCTCATTTCAGGACGTTGAGAGGATCTTG.....

M2 G nucl. ACCTCAGTGGATGTAAGTCTCATTTCAGGACGTTGAGAGGATCTTGGATTATTCCCTCTGC

M3 G nucl. ACCTCAGTGGATGTAAGTCTCATTTCAGGACGTTGAGAGGATCTTGGATTATTCCCTCTGC

M4 G nucl. ACCTCAGTGGATGTAAGTCTCATTTCAGGACGTTGAGAGGATCT.....

FIGURE 20-2

		901		960
GenBank	G nucl.	CAAGAAACCTGGAGCAAAATCAGAGCGGGTCTTCC	AATCTCTCCAGTGGATCTCAGCTAT	
	HR	G nucl.	.....
	M2	G nucl.	CAAGAAACCTGGAGCAAAATCAGAGCGGGTCTTCCC	ATCTCTCCAGTGGATCTCAGCTAT
	M3	G nucl.	CAAGAAACCTGGAGCAAAATCAGAGCGGGTCTTCCC	ATCTCTCCAGTGGATCTCAGCTAT
	M4	G nucl.	.....
		961		1020
GenBank	G nucl.	CTTGCTCCTAAAAACCCAGGAACCGGTCTTGCTTTCACCATAATCAATGGTACCCTAAAA		
	HR	G nucl.	.....
	M2	G nucl.	CTTGCTCCTAAAAACCCAGGAACCGGTCTTGCTTTCACCATAATCAATGGTACCCTAAAA	
	M3	G nucl.	CTTGCTCCTAAAAACCCAGGAACCGGTCTTGCTTTCACCATAATCAATGGTACCCTAAAA	
	M4	G nucl.	.....
		1021		1080
GenBank	G nucl.	TACTTTGAGACCAGATACATCAGAGTCGATATTGCTGCTCCAATCCTCTCAAGAATGGTC		
	HR	G nucl.	.....
	M2	G nucl.	TACTTTGAGACCAGATACATCAGAGTCGATATTGCTGCTCCAATCCTCTCAAGAATGGTC	
	M3	G nucl.	TACTTTGAGACCAGATACATCAGAGTCGATATTGCTGCTCCAATCCTCTCAAGAATGGTC	
	M4	G nucl.	TACTTTGAGACCAGATACATCAGAGTCGATATTGCTGCTCCAATCCTCTCAAGAATGGTC	
		1081		1140
GenBank	G nucl.	GGAATGATCAGTGGAACCTACCACAGAAAGGGAACGTGGGATGACTGGGC	ACCATATGAA	
	HR	G nucl.	.....
	M2	G nucl.	GGAATGATCAGTGGAACCTACCACAGAAAGGGAACGTGGGATGACTGGGCTCCATATGAA	
	M3	G nucl.	GGAATGATCAGTGGAACCTACCACAGAAAGGGAACGTGGGATGACTGGGCTCCATATGAA	
	M4	G nucl.	GGAATGATCAGTGGAACCTACCACAGAAAGGGAACGTGGGATGACTGGGCTCCATATGAA	
		1141		1200
GenBank	G nucl.	GACGTGGAAATTGGACCCAATGGAGTTCTGAGGACCAGTTCAGGATATAAGTTTCCTTTA		
	HR	G nucl.	.....
	M2	G nucl.	GACGTGGAAATTGGACCCAATGGAGTTCTGAGGACCAGTTCAGGATATAAGTTTCCTTTA	
	M3	G nucl.	GACGTGGAAATTGGACCCAATGGAGTTCTGAGGACCAGTTCAGGATATAAGTTTCCTTTA	
	M4	G nucl.	GACGTGGAAATTGGACCCAATGGAGTTCTGAGGACCAGTTCAGGATATAAGTTTCCTTTA	
		1201		1260
GenBank	G nucl.	TATGATGATTGGACATGGTATGTTGGACTCCGATCTTCATCTTAGCTCAAAGGCTCAGGTG		
	HR	G nucl.	.....
	M2	G nucl.	TATATGATTGGACATGGTATGTTGGACTCCGATCTTCATCTTAGCTCAAAGGCTCAGGTG	
	M3	G nucl.	TATATGATTGGACATGGTATGTTGGACTCCGATCTTCATCTTAGCTCAAAGGCTCAGGTG	
	M4	G nucl.	TATATGATTGGACATGGTATGTTGGACTCCGATCTTCATCTTAGCTCAAAGGCTCAGGTG	
		1261		1320
GenBank	G nucl.	TTGGAACATCCTCACATTCAAGACGCTGCTTCGCA	ACTTCCTGATGATGAGACTTTATTT	
	HR	G nucl.	.....
	M2	G nucl.	TTTGAACATCCTCACATTCAAGACGCTGCTTCGCAGCTTCCTGATGATGAGACTTTATTT	
	M3	G nucl.	TTTGAACATCCTCACATTCAAGACGCTGCTTCGCAGCTTCCTGATGATGAGACTTTATTT	
	M4	G nucl.	TTTGAACATCCTCACATTCAAGACGCTGCTTCGCAGCTTCCTGATGATGAGACTTTATTT	

FIGURE 20-3

		1321		1380
GenBank	G nucl.	TTTGGTGATACTGGGCTATCCAAAAATCCAATCGAG	CTTGTAGAAGGTTGGTTCAGTAGT	
	HR	G nucl.	.....
	M2	G nucl.	TTTGGTGATACTGGGCTATCCAAAAATCCAATCGAGTTTGTAGAAGGTTGGTTCAGTAGT	
	M3	G nucl.	TTTGGTGATACTGGGCTATCCAAAAATCCAATCGAGTTTGTAGAAGGTTGGTTCAGTAGT	
	M4	G nucl.	TTTGGTGATACTGGGCTATCCAAAAATCCAATCGAGTTTGTAGAAGGTTGGTTCAGTAGT	
		1381		1440
GenBank	G nucl.	TGGAA	AAGCTCTATTGCCTCTTTTTTCTTTATCATAGGGTTAATCATTGGACTATTCTTG	
	HR	G nucl.	.....
	M2	G nucl.	TGGAAGAGCTCTATTGCCTCTTTTTTCTTTATCATAGGGTTAATCATTGGACTATTCTTG	
	M3	G nucl.	TGGAAGAGCTCTATTGCCTCTTTTTTCTTTATCATAGGGTTAATCATTGGACTATTCTTG	
	M4	G nucl.	TGGAAGAGCTCTATTGCCTCTTTTTTCTTTATCATAGGGTTAATCATTGGACTATTCTTG	
		1441		1500
GenBank	G nucl.	GTTCTCCGAGTTGGTAT	CCATCTTTGCATTAAATTAAAGCACACCAAGAAAAGACAGATT	
	HR	G nucl.	.....
	M2	G nucl.	GTTCTCCGAGTTGGTATTTATCTTTGCATTAAATTAAAGCACACCAAGAAAAGACAGATT	
	M3	G nucl.	GTTCTCCGAGTTGGTATTTATCTTTGCATTAAATTAAAGCACACCAAGAAAAGACAGATT	
	M4	G nucl.	GTTCTCCGAGTTGGTATTTATCTTTGCATTAAATTAAAGCACACCAAGAAAAGACAGATT	
		1501		1536
GenBank	G nucl.	TATACAGACATAGAGATGAACCGACTTGG	AAGTAA	
	HR	G nucl.	.....
	M2	G nucl.	TATACAGACATAGAGATGAACCGACTTGGGAAGTAA	
	M3	G nucl.	TATACAGACATAGAGATGAACCGACTTGGGAAGTAA	
	M4	G nucl.	TATACAGACATAGAGATGAACCGACTTGGGAAGTAA	

FIGURE 20-4

		1	60
GenBank	G a . a .	MKCLLYLAFLFIGVNCKFTIVFPINQKGNWKNVPSNYHYCPSSSDLNWHNDLIGTAIQVK	
	HR	G a . a .	MKCLLYLAFLFIGVNCKFTIVFPYNQKGNWKNVPSNYHYCPSSSDLNHNLDLIGTALQVK
	M2	G a . a .	.....
	M3	G a . a .	MKCLLYLAFLFIGVNCKFTIVFPYNQKGNWKNVPSNYHYCPSSSDLNWHNDLIGTALQVK
	M4	G a . a .	MKCLLYLAFLFIGVNCKFTIVFPYNQKGNWKNVPSNYHYCPSSSDLNWHNDLIGTALQVK
		61	120
GenBank	G a . a .	MPKSHKAIQADGWMCHASKWVTTCDFRWYGPKYITQSIRSFTPSVEQCKESIEQTKQGTW	
	HR	G a . a .	MPKSHKAIQADGWMCHASKWVTTCDFRWYGPKYITHSIRSFTPSVEQCKESIEQTKQGTW
	M2	G a . a .	.....
	M3	G a . a .	MPKSHKAIQADGWMCHASKWVTTCDFRWYGPKYITHSIRSFTPSVEQCKESIEQTKQGTW
	M4	G a . a .	MPKSHKAIQADGWMCHASKWVTTCDFRWYGPKYITHSIRSFTPSVEQCKESIEQTKQGTW
		121	180
GenBank	G a . a .	LNPGFPPQSCGYATVTDAAEAIIVQVTPHHVLVDEYTG EWVDSQFINGKCSNVCICPTVHNS	
	HR	G a . a .	LNPGFPPQSCGYATVTDAAEAIIVQVTPHHVLVDEYTG EWVDSQFINGKCSNDICPTVHNS
	M2	G a . a .	.....
	M3	G a . a .	LNPGFPPQSCGYATVTDAAEAIIVQVTPHHVLVDEYTG EWVDSQFINGKCSNDICPTVHNS
	M4	G a . a .	LNPGFPPQSCGYATVTDAAEAIIVQVTPHHVLVDEYTG EWVDSQFINGKCSNDICPTVHNS
		181	240
GenBank	G a . a .	TTWHSYKVKGLCDSNLISMDITFFSEDGELSSLGKEGTGFRSNYFAYETGCKACKMQYC	
	HR	G a . a .	TTWHSYKVKGLCDSNLISMDITFFSEDGELSSLGKEGTGFRSNYFAYETGDKACKMQYC
	M2	G a . a .	.....
	M3	G a . a .	TTWHSYKVKGLCDSNLISMDITFFSEDGELSSLGKEGTGFRSNYFAYETGDKACKMQYC
	M4	G a . a .	TTWHSYKVKGLCDSNLISMDITFFSEDGELSSLGKEGTGFRSNYFAYETGDKACKMQYC
		241	300
GenBank	G a . a .	KHWGVRLPSGVWFEMADKDLFAAARFPECPEGSSISAPSQTSVDVSLIQDVERILDYSLC	
	HR	G a . a .	KHWGVRLPSGVWFEMADKDLFAAARFPECPEGSSISAPSQTSVDVSLIQDVERIL.....
	M2	G a . a .	.....PSQTSVDVSLIQDVERILDYSLC
	M3	G a . a .	KHWGVRLPSGVWFEMADKDLFAAARFPECPEGSSISAPSQTSVDVSLIQDVERILDYSLC
	M4	G a . a .	KHWGVRLPSGVWFEMADKDLFAAARFPECPEGSSISAPSQTSVDVSLIQDVERI.....
		301	360
GenBank	G a . a .	QETWSKIRAGLPISPVDLSYLAPKNPGTGPAFTIINGTLKYFETRYIRVDIAAPILSRMV	
	HR	G a . a .	.....
	M2	G a . a .	QETWSKIRAGLPISPVDLSYLAPKNPGTGPAFTIINGTLKYFETRYIRVDIAAPILSRMV
	M3	G a . a .	QETWSKIRAGLPISPVDLSYLAPKNPGTGPAFTIINGTLKYFETRYIRVDIAAPILSRMV
	M4	G a . a .	.....YFETRYIRVDIAAPILSRMV
		361	420
GenBank	G a . a .	GMISGTTTERELWDDWAPYEDVEIGPNGVLRRTSSGYKFPLYMIGHGMLDSDLHLSSKAQV	
	HR	G a . a .	.....
	M2	G a . a .	GMISGTTTERELWDDWAPYEDVEIGPNGVLRRTSSGYKFPLYMIGHGMLDSDLHLSSKAQV
	M3	G a . a .	GMISGTTTERELWDDWAPYEDVEIGPNGVLRRTSSGYKFPLYMIGHGMLDSDLHLSSKAQV
	M4	G a . a .	GMISGTTTERELWDDWAPYEDVEIGPNGVLRRTSSGYKFPLYMIGHGMLDSDLHLSSKAQV

FIGURE 21-1

		421		480
GenBank	G a . a .	FEHPHIQDAASQLPDDE	S	LFFGDTGLSKNPIE
	HR	G a . a .		VEGWFSSWKSSIASFFFIIGLIIGLFL
	M2	G a . a .		FEHPHIQDAASQLPDDETLFFGDTGLSKNPIEFVEGWFSSWKSSIASFFFIIGLIIGLFL
	M3	G a . a .		FEHPHIQDAASQLPDDETLFFGDTGLSKNPIEFVEGWFSSWKSSIASFFFIIGLIIGLFL
	M4	G a . a .		FEHPHIQDAASQLPDDETLFFGDTGLSKNPIEFVEGWFSSWKSSIASFFFIIGLIIGLFL
		481		512
GenBank	G a . a .	VLRVGI	I	LCIKLKHTKKRQIYTDIEMNRLGK
	HR	G a . a .		VLRVGIYLCIKLKHTKKRQIYTDIEMNRLGK
	M2	G a . a .		VLRVGIYLCIKLKHTKKRQIYTDIEMNRLGK
	M3	G a . a .		VLRVGIYLCIKLKHTKKRQIYTDIEMNRLGK
	M4	G a . a .		VLRVGIYLCIKLKHTKKRQIYTDIEMNRLGK

FIGURE 21-2

GenBank L nucl.	1	60
HR L nucl.	ATGGAAGTCCACGATTTTGAGACCGACGAGTTCAATGATTTCAATGAAGATGACTATGCC	
M2 L nucl.	.....
M4 L nucl.	ATGGAAGTCCACGATTTTGAGACCGACGAGTTCAATGATTTCAATGAAGATGACTATGCC	
GenBank L nucl.	61	120
HR L nucl.	ACAAGAGAATTCCTGAATCCCGATGAGCGCATGACGTACTTGAATCATGCTGATTACAAT	
M2 L nucl.	.....
M4 L nucl.	ACAAGAGAATTCCTGAATCCCGATGAGCGCATGACGTACTTGAATCATGCTGATTACAAT	
GenBank L nucl.	121	180
HR L nucl.	TTGAATTCTCCTCTAATTAGTGATGATATTGACAATTTGATCAGGAAATTCAATTCTCTT	
M2 L nucl.	.....
M4 L nucl.	TTGAATTCTCCTCTAATTAGTGATGATATTGACAATTTGATCAGGAAATTCAATTCTCTT	
GenBank L nucl.	181	240
HR L nucl.	CCGATTCCCTCGATGTGGGATAGTAAGAACTGGGATGGAGTTCTTGAGATGTTAACATCA	
M2 L nucl.	.....
M4 L nucl.	CCGATTCCCTCGATGTGGGATAGTAAGAACTGGGATGGAGTTCTTGAGATGTTAACATCA	
GenBank L nucl.	241	300
HR L nucl.	TGTCAAGCCAATCCCATCTCAACATCTCAGATGCATAAATGGATGGGAAGTTGGTTAATG	
M2 L nucl.	.....
M4 L nucl.	TGTCAAGCCAATCCCATCTCAACATCTCAGATGCATAAATGGATGGGAAGTTGGTTAATG	
GenBank L nucl.	301	360
HR L nucl.	TCTGATAATCATGATGCCAGTCAAGGGTATAGTTTTTTTACATGAAGTGGACAAAGAGGCA	
M2 L nucl.	.....
M4 L nucl.	TCTGATAATCATGATGCCAGTCAAGGGTATAGTTTTTTTACATGAAGTGGACAAAGAGGCA	
GenBank L nucl.	361	420
HR L nucl.	GAAATAACATTTGACGTGGTGGAGACCTTCATCCGCGGCTGGGGCAACAAACCAATTGAA	
M2 L nucl.	.....
M4 L nucl.	GAAATAACATTTGACGTGGTGGAGACCTTCATCCGCGGCTGGGGCAACAAACCAATTGAA	
GenBank L nucl.	421	480
HR L nucl.	TACATCAAAAAGGAAAGATGGACTGACTCATTCAAAATTCTCGCTTATTTGTGTCAAAAG	
M2 L nucl.	.....
M4 L nucl.	TACATCAAAAAGGAAAGATGGACTGACTCATTCAAAATTCTCGCTTATTTGTGTCAAAAG	
GenBank L nucl.	481	540
HR L nucl.	TTTTTGGACTTACACAAGTTGACATTAATCTTAAATGCTGTCTCTGAGGTGGAATTGCTC	
M2 L nucl.	.....
M4 L nucl.	TTTTTGGACTTACACAAGTTGACATTAATCTTAAATGCTGTCTCTGAGGTGGAATTGCTC	

FIGURE 22-1

	541	600
GenBank L nucl.	AACTTGGCGAGGACTTTCAAAGGCAAAGTCAGAAGAAGTTCTCATGGAACGAACATATGC	
HR L nucl.	.....
M2 L nucl.	.....
M4 L nucl.	AACTTGGCGAGGACTTTCAAAGGCAAAGTCAGAAGAAGTTCTCATGGAACGAACATATGC	
	601	660
GenBank L nucl.	AGGA T TTAGGGTTC C CAGCTTGGGTCTACTTTTATTTTCAGAAGGATGGGCTTACTTCAAG	
HR L nucl.	.....
M2 L nucl.	.....
M4 L nucl.	AGG C TTAGGGTTC C CAGCTTGGGTCTACTTTTATTTTCAGAAGGATGGGCTTACTTCAAG	
	661	720
GenBank L nucl.	AAACTTGATATTCTAATGGACCGAAACTTTCTGTTAATGGTCAAAGATGTGATTATAGGG	
HR L nucl.	.....
M2 L nucl.	.....
M4 L nucl.	AAACTTGATATTCTAATGGACCGAAACTTTCTGTTAATGGTCAAAGATGTGATTATAGGG	
	721	780
GenBank L nucl.	AGGATGCAAACGGTGCTATCCATGGTATGTAGAATAGACAACCTGTTCTCAGAGCAAGAC	
HR L nucl.	.....
M2 L nucl.	.....
M4 L nucl.	AGGATGCAAACGGTGCTATCCATGGTATGTAGAATAGACAACCTGTTCTCAGAGCAAGAC	
	781	840
GenBank L nucl.	ATCTTCTCCCTTCTAAATATCTACAGAATTGGAGATAAAATTGTGGAGAGGCAGGGAAAT	
HR L nucl.	.....
M2 L nucl.	.....
M4 L nucl.	ATCTTCTCCCTTCTAAATATCTACAGAATTGGAGATAAAATTGTGGAGAGGCAGGGAAAT	
	841	900
GenBank L nucl.	TTTTCTTATGACTTGATTAAATGGTGAACCGATATGCAACTTGA A GCTGATGAAATTA	
HR L nucl.	.....
M2 L nucl.	.....
M4 L nucl.	TTTTCTTATGACTTGATTAAATGGTGAACCGATATGCAACTTGA C GCTGATGAAATTA	
	901	960
GenBank L nucl.	GCAAGAGAATCAAGGCCTTTAGTCCCACAATTCCCTCATTTTGAAAATCATATCAAGACT	
HR L nucl.	.....
M2 L nucl.	.....
M4 L nucl.	GCAAGAGAATCAAGGCCTTTAGTCCCACAATTCCCTCATTTTGAAAATCATATCAAGACT	
	961	1020
GenBank L nucl.	TCTGTTGATGAAGGGGCAAAAATTGACCGAGGTATAAGATTCTCCATGATCAGATAATG	
HR L nucl.	.....
M2 L nucl.	.....
M4 L nucl.	TCTGTTGATGAAGGGGCAAAAATTGACCGAGGTATAAGATTCTCCATGATCAGATAATG	

FIGURE 22-2

	1021		1080
GenBank L nucl.	AGTGTGAAAACAGTGGATCTCACACTGGTGATTTATGGATCGTTCAGACATTGGGGTCAT		
HR L nucl.	.....		CATTGGGGTCAT
M2 L nucl.	.....	
M4 L nucl.	AGTGTGAAAACAGTGGATCTCACACTGGTGATTTATGGATCGTTCAGACATTGGGGTCAT		
	1081		1140
GenBank L nucl.	CCTTTTATAGATTATTACCTGGACTAGAAAAATTACATTCCCAAGTAACCATGAAGAAA		
HR L nucl.	CCTTTTATAGATTATTACGCTGGCTAGAAAAATTACATTCCCAAGTACCATGAAGAAA		
M2 L nucl.	.....	
M4 L nucl.	CCTTTTATAGATTATTACGCTGGACTAGAAAAATTACATTCCCAAGTAACCATGAAGAAA		
	1141		1200
GenBank L nucl.	GATATTGATGTGTCATATGCAAAAGCACTTGCAAGTGATTTAGCTCGGATTGTTCTATTT		
HR L nucl.	GATATTGATGTGTCATATGCAAAAGCACTTGCAAGTGATTTAGCTCGGATTGTTCTATTT		
M2 L nucl.	.....	
M4 L nucl.	GATATTGATGTGTCATATGCAAAAGCACTTGCAAGTGATTTAGCTCGGATTGTTCTATTT		
	1201		1260
GenBank L nucl.	CAACAGTTCAATGATCATAAAAAAGTGGTTCGTGAATGGAGACTTGCTCCCTCATGATCAT		
HR L nucl.	CAACAGTTCAATGATCATAAAAAAGTGGTTCGTGAATGGAGACTTGCTCCCTCATGATCAT		
M2 L nucl.	.....	
M4 L nucl.	CAACAGTTCAATGATCATAAAAAAGTGGTTCGTGAATGGAGACTTGCTCCCTCATGATCAT		
	1261		1320
GenBank L nucl.	CCCTTTAAAAGTCATGTTAAAGAAAATACATGGCCCCACAGCTGCTCAAGTTCAAGATTTT		
HR L nucl.	CCCTTTAAAAGTCATGTTAAAGAAAATACATGGCCCCACAGCTGCTCAAGTTCAAGATTTT		
M2 L nucl.	.....	
M4 L nucl.	CCCTTTAAAAGTCATGTTAAAGAAAATACATGGCCCCACAGCTGCTCAAGTTCAAGATTTT		
	1321		1380
GenBank L nucl.	GGAGATAAATGGCATGAACTTCCGCTGATTAAATGTTTTGAAATACCCGACTTACTAGAC		
HR L nucl.	GGAGATAAATGGCATGAACTTCCGCTGATTAAATGTTTTGAAATACCCGACTTACTAGAC		
M2 L nucl.	.....	
M4 L nucl.	GGAGATAAATGGCATGAACTTCCGCTGATTAAATGTTTTGAAATACCCGACTTACTAGAC		
	1381		1440
GenBank L nucl.	CCATCGATAATATACTCTGACAAAAGTCATTCAATGAATAGGTCAGAGGTGTTGAAACAT		
HR L nucl.	CCATCGATAATATACTCTGACAAAAGTCATTCAATGAATAGGTCAGAGGTGTTGAAACAT		
M2 L nucl.	.....	
M4 L nucl.	CCATCGATAATATACTCTGACAAAAGTCATTCAATGAATAGGTCAGAGGTGTTGAAACAT		
	1441		1500
GenBank L nucl.	GTCCGAATGAATCCGAACACTCCTATCCCTAGTAAAAAGGTGTTGCAGACTATGTTGGAC		
HR L nucl.	GTCCGAATGAATCCGAACACTCCTATCCCTAGTAAAAAGGTGTTGCAGACTATGTTGGAC		
M2 L nucl.	.....	
M4 L nucl.	GTCCGAATGAATCCGAACACTCCTATCCCTAGTAAAAAGGTGTTGCAGACTATGTTGGAC		

FIGURE 22-3

	1501	1560
GenBank L nucl.	ACAAAGGCTACCAATTGGAAAGAATTTCTTAAAGAGATTGATGAGAAGGGCTTAGATGAT	
HR L nucl.	ACAAAGGCTACCAATTGGAAAGAATTTCTTAAAGAGATTGATGAGAAGGGCTTAGATGAT	
M2 L nucl.	.....
M4 L nucl.	ACAAAGGCTACCAATTGGAAAGAATTTCTTAAAGAGATTGATGAGAAGGGCTTAGATGAT	
	1561	1620
GenBank L nucl.	GATGATCTAATTATTGGTCTTAAAGGAAAGGAGAGGGAAGTGAAGTTGGCAGGTAGATTT	
HR L nucl.	GATGATCTAATTATTGGTCTTAAAGGAAAGGAGAGGGAAGTGAAGTTGGCAGGTAGATTT	
M2 L nucl.	.....
M4 L nucl.	GATGATCTAATTATTGGTCTTAAAGGAAAGGAGAGGGAAGTGAAGTTGGCAGGTAGATTT	
	1621	1680
GenBank L nucl.	TTCTCCCTAATGTCTTGGAATTCGAGAATACTTTGTAATTACCGAATATTTGATAAAG	
HR L nucl.	TTCTCCCTAATGTCTTGGAATTCGAGAATACTTTGTAATTACCGAATATTTGATAAAG	
M2 L nucl.	.....
M4 L nucl.	TTCTCCCTAATGTCTTGGAATTCGAGAATACTTTGTAATTACCGAATATTTGATAAAG	
	1681	1740
GenBank L nucl.	ACTCATTTTCGTCCCTATGTTTAAAGGCCTGACAATGGCGGACGATCTAACTGCAGTCATT	
HR L nucl.	ACTCATTTTCGTCCCTATGTTTAAAGGCCTGACAATGGCGGACGATCTAACTGCAGTCATT	
M2 L nucl.	.....
M4 L nucl.	ACTCATTTTCGTCCCTATGTTTAAAGGCCTGACAATGGCGGACGATCTAACTGCAGTCATT	
	1741	1800
GenBank L nucl.	AAAAAGATGTTAGATTTCCTCATCCGGCCAAGGATTGAAGTCATATGAGGCAATTTGCATA	
HR L nucl.	AAAAAGATGTTAGATTTCCTCATCCGGCCAAGGATTGAAGTCATATGAGGCAATTTGCATA	
M2 L nucl.	.....
M4 L nucl.	AAAAAGATGTTAGATTTCCTCATCCGGCCAAGGATTGAAGTCATATGAGGCAATTTGCATA	
	1801	1860
GenBank L nucl.	GCCAATCACATTGATTACGAAAAATGGAATAACCACCAAAGGAAGTTATCAAACGGCCCCA	
HR L nucl.	GCCAATCACATTGATTACGAAAAATGGAATAACCACCAAAGGAAGTTATCAAACGGCCCCA	
M2 L nucl.	.....
M4 L nucl.	GCCAATCACATTGATTACGAAAAATGGAATAACCACCAAAGGAAGTTATCAAACGGCCCCA	
	1861	1920
GenBank L nucl.	GTGTTCCGAGTTATGGGCCAGTTCTTAGGTTATCCATCCTTAATCGAGAGAACTCATGAA	
HR L nucl.	GTGTTCCGAGTTATGGGCCAGTTCTTAGGTTATCCATCCTTAATCGAGAGAACTCATGAA	
M2 L nucl.	.....
M4 L nucl.	GTGTTCCGAGTTATGGGCCAGTTCTTAGGTTATCCATCCTTAATCGAGAGAACTCATGAA	
	1921	1980
GenBank L nucl.	TTTTTTGAGAAAAGTCTTATATACTACAATGGAAGACCAGACTTGATGCGTGTTTACAAC	
HR L nucl.	TTTTTTGAGAAAAGTCTTATATACTACAATGGAAGACCAGACTTGATGCGTGTTTACAAC	
M2 L nucl.	.....
M4 L nucl.	TTTTTTGAGAAAAGTCTTATATACTACAATGGAAGACCAGACTTGATGCGTGTTTACAAC	
	1981	2040
GenBank L nucl.	AACACACTGATCAATTCAACCTCCCAACGAGTTTGTGGCAAGGACAAGAGGGTGGACTG	
HR L nucl.	AACACACTGATCAATTCAACCTCCCAACGAGTTTGTGGCAAGGACAAGAGGGTGGACTG	
M2 L nucl.	.....
M4 L nucl.	AACACACTGATCAATTCAACCTCCCAACGAGTTTGTGGCAAGGACAAGAGGGTGGACTG	

FIGURE 22-4

	2041		2100
GenBank L nucl.	GAAGGTCTACGGCAAAAAGGATGGAGTATCCTCAATCTACTGGTTATTCAAAGAGAGGCT		
HR L nucl.	GAAGGTCTACGGCAAAAAGGATGGAGTATCCTCAATCTACTGGTTATTCAAAGAGAGGCT		
M2 L nucl.	.....	
M4 L nucl.	GAAGGTCTACGGCAAAAAGGATGGAGTATCCTCAATCTACTGGTTATTCAAAGAGAGGCT		
	2101		2160
GenBank L nucl.	AAAAATCAGAAACACTGCTGTCAAAGTCTTGGCACAAGGTGATAATCAAGTTATTTGCACA		
HR L nucl.	AAAAATCAGAAACACTGCTGTCAAAGTCTTGGCACAAGGTGATAATCAAGTTATTTGCACA		
M2 L nucl.	.....	
M4 L nucl.	AAAAATCAGAAACACTGCTGTCAAAGTCTTGGCACAAGGTGATAATCAAGTTATTTGCACA		
	2161		2220
GenBank L nucl.	CAGTATAAAACGAAGAAATCGAGAAACGTTGTAGAATTACAGGGTGCTCTCAATCAAATG		
HR L nucl.	CAGTATAAAACGAAGAAATCGAGAAACGTTGTAGAATTACAGGGTGCTCTCAATCAAATG		
M2 L nucl.	.....	
M4 L nucl.	CAGTATAAAACGAAGAAATCGAGAAACGTTGTAGAATTACAGGGTGCTCTCAATCAAATG		
	2221		2280
GenBank L nucl.	GTTTCTAATAATGAGAAAATTATGACTGCAATCAAAATAGGGACAGGGAAGTTAGGACTT		
HR L nucl.	GTTTCTAATAATGAGAAAATTATGACTGCAATCAAAATAGGGACAGGGAAGTTAGGACTT		
M2 L nucl.	.....	
M4 L nucl.	GTTTCTAATAATGAGAAAATTATGACTGCAATCAAAATAGGGACAGGGAAGTTAGGACTT		
	2281		2340
GenBank L nucl.	TTGATAAAATGACGATGAGACTATGCAATCTGCAGATTACTTGAATTATGGAAAAATACCG		
HR L nucl.	TTGATAAAATGACGATGAGACTATGCAATCTGCAGATTACTTGAATTATGGAAAAATACCG		
M2 L nucl.	.....	
M4 L nucl.	TTGATAAAATGACGATGAGACTATGCAATCTGCAGATTACTTGAATTATGGAAAAATACCA		
	2341		2400
GenBank L nucl.	ATTTTCCGTGGAGTGATTAGAGGGTTAGAGACCAAGAGATGGTCACGAGTGACTTGTGTC		
HR L nucl.	ATTTTCCGTGGAGTGATTAGAGGGTTAGAGACCAAGAGATGGTCACGAGTGACTTGTGTC		
M2 L nucl.	.....	
M4 L nucl.	ATTTTCCGTGGAGTGATTAGAGGGTTAGAGACCAAGAGATGGTCACGAGTGACTTGTGTC		
	2401		2460
GenBank L nucl.	ACCAATGACCAAATACCCACTTGTGCTAATATAATGAGCTCAGTTTCCACAAATGCTCTC		
HR L nucl.	ACCAATGACCAAATACCCACTTGTGCTAATATAATGAGCTCAGTTTCCACAAATGCTCTC		
M2 L nucl.	.....	
M4 L nucl.	ACCAATGACCAAATACCCACTTGTGCTAATATAATGAGCTCAGTTTCCACAAATGCTCTC		
	2461		2520
GenBank L nucl.	ACCGTAGCTCATTTTGCTGAGAACCCAATCAATGCCATGATACAGTACAATTATTTTGGG		
HR L nucl.	ACCGTAGCTCATTTTGCTGAGAACCCAATCAATGCCATGATACAGTACAATTATTTTGGG		
M2 L nucl.	.....	
M4 L nucl.	ACCGTAGCTCATTTTGCTGAGAACCCAATCAATGCCATGATACAGTACAATTATTTTGGG		
	2521		2580
GenBank L nucl.	ACATTTGCTAGACTCTTGTGATGATGCATGATCCTGCTCTTCGTCAATCATTTGTATGAA		
HR L nucl.	ACATTTGCTAGACTCTTGTGATGATGCATGATCCTGCTCTTCGTCAATCATTTGTATGAA		
M2 L nucl.	.....	
M4 L nucl.	ACATTTGCTAGACTCTTGTGATGATGCATGATCCTGCTCTTCGTCAATCATTTGTATGAA		

FIGURE 22-5

	2581	2640
GenBank L nucl.	GTTCAAGATAAGATAACCGGGCTTGCACAGTTCTACTTTCAAATACGCCATGTTGTATTTG	
HR L nucl.	GTTCAAGATAAGATAACCGGGCTTGCACAGTTCTACTTTCAAATACGCCATGTTGTATTTG	
M2 L nucl.	.....
M4 L nucl.	GTTCAAGATAAGATAACCGGGCTTGCACAGTTCTACTTTCAAATACGCCATGTTGTATTTG	
	2641	2700
GenBank L nucl.	GACCCTTCCATTGGAGGAGTGTCTGGGCATGTCTTTGTCCAGGTTTTTGATTAGAGCCTTC	
HR L nucl.	GACCCTTCCATTGGAGGAGTGTCTGGGCATGTCTTTGTCCAGGTTTTTGATTAGAGCCTTC	
M2 L nucl.	.....
M4 L nucl.	GACCCTTCCATTGGAGGAGTGTCTGGGCATGTCTTTGTCCAGGTTTTTGATTAGAGCCTTC	
	2701	2760
GenBank L nucl.	CCAGATCCCGTAACAGAAAGTCTCTCATTCTGGAGATTCATCCATGTACATGCTCGAAGT	
HR L nucl.	CCAGATCCCGTAACAGAAAGTCTCTCATTCTGGAGATTCATCCATGTACATGCTCGAAGT	
M2 L nucl.	.....
M4 L nucl.	CCAGATCCCGTAACAGAAAGTCTCTCATTCTGGAGATTCATCCATGTACATGCTCGAAGT	
	2761	2820
GenBank L nucl.	GAGCATCTGAAGGAGATGAGTGCAGTATTTGGAAACCCCGAGATAGCCAAGTTTCGAATA	
HR L nucl.	GAGCATCTGAAGGAGATGAGTGCAGTATTTGGAAACCCCGAGATAGCCAAGTTTCGAATA	
M2 L nucl.	.....
M4 L nucl.	GAGCATCTGAAGGAGATGAGTGCAGTATTTGGAAACCCCGAGATAGCCAAGTTTCGAATA	
	2821	2880
GenBank L nucl.	ACTCACATAGACAAGCTAGTAGAAGATCCAACCTCTCTGAACATCGCTATGGGAATGAGT	
HR L nucl.	ACTCACATAGACAAGCTAGTAGAAGATCCAACCTCTCTGAACATCGCTATGGGAATGAGT	
M2 L nucl.	.....
M4 L nucl.	ACTCACATAGACAAGCTAGTAGAAGATCCAACCTCTCTGAACATCGCTATGGGAATGAGT	
	2881	2940
GenBank L nucl.	CCAGCGAACTTGTTAAAGACTGAGGTTAAAAAATGCTTAATCGAATCAAGACAAACCATC	
HR L nucl.	CCAGCGAACTTGTTAAAGACTGAGGTTAAAAAATGCTTAATCGAATCAAGACAAACCATC	
M2 L nucl.	.....
M4 L nucl.	CCAGCGAACTTGTTAAAGACTGAGGTTAAAAAATGCTTAATCGAATCAAGACAAACCATC	
	2941	3000
GenBank L nucl.	AGGAACCAGGTGATTAAGGATGCAACCATATATTTGTATCATGAAGAGGATCGGCTCAGA	
HR L nucl.	AGGAACCAGGTGATTAAGGATGCAACCATATATTTGTATCATGAAGAGGATCGGCTCAGA	
M2 L nucl.	.....
M4 L nucl.	AGGAACCAGGTGATTAAGGATGCAACCATATATTTGTATCATGAAGAGGATCGGCTCAGA	
	3001	3060
GenBank L nucl.	AGTTTCTTATGGTCAATAAATCCTCTGTTCCCTAGATTTTTAAGTGAATTCAAATCAGGC	
HR L nucl.	AGTTTCTTATGGTCAATAAATCCTCTGTTCCCTAGATTTTTAAGTGAATTCAAATCAGGC	
M2 L nucl.	.....
M4 L nucl.	AGTTTCTTATGGTCAATAAATCCTCTGTTCCCTAGATTTTTAAGTGAATTCAAATCAGGC	
	3061	3120
GenBank L nucl.	ACTTTTTTGGGAGTCGCAGACGGGCTCATCAGTCTATTTCAAATTTCTCGTACTATTCGG	
HR L nucl.	ACTTTTTTGGGAGTCGCAGACGGGCTCATCAGTCTATTTCAAATTTCTCGTACTATTCGG	
M2 L nucl.	.....
M4 L nucl.	ACTTTTTTGGGAGTCGCAGACGGGCTCATCAGTCTATTTCAAATTTCTCGTACTATTCGG	

FIGURE 22-6

	3121	3180
GenBank L nucl.	AACTCCTTTAAGAAAAAGTATCATAGGGAATTGGATGATTTGATTGTGAGGAGTGAGGTA	
HR L nucl.	AACTCCTTTAAGAAAAAGTATCATAGGGAATTGGATGATTTGATTGTGAGGAGTGAGGTA	
M2 L nucl.	.....
M4 L nucl.	AACTCCTTTAAGAAAAAGTATCATAGGGAATTGGATGATTTGATTGTGAGGAGTGAGGTA	
	3181	3240
GenBank L nucl.	TCCTCTTTGACACATTTAGGGAAACTTCATTTGAGAAGGGGATCATGTAAAAATGTGGACA	
HR L nucl.	TCCTCTTTGACACATTTAGGGAAACTTCATTTGAGAAGGGGATCATGTAAAAATGTGGACA	
M2 L nucl.	.....
M4 L nucl.	TCCTCTTTGACACATTTAGGGAAACTTCATTTGAGAAGGGGATCATGTAAAAATGTGGACA	
	3241	3300
GenBank L nucl.	TGTTTCAGCTACTCATGCTGACACATTAAGATACAAATCCTGGGGCCGTACAGTTATTGGG	
HR L nucl.	TGTTTCAGCTACTCATGCTGACACATTAAGATACAAATCCTGGGGCCGTACAGTTATTGGG	
M2 L nucl.	.....
M4 L nucl.	TGTTTCAGCTACTCATGCTGACACATTAAGATACAAATCCTGGGGCCGTACAGTTATTGGG	
	3301	3360
GenBank L nucl.	ACAACTGTACCCCATCCATTAGAAATGTTGGGTCCACAACATCGAAAAGAGACTCCTTGT	
HR L nucl.	ACAACTGTACCCCATCCATTAGAAATGTTGGGTCCACAACATCGAAAAGAGACTCCTTGT	
M2 L nucl.	.....
M4 L nucl.	ACAACTGTACCCCATCCATTAGAAATGTTGGGTCCACAACATCGAAAAGAGACTCCTTGT	
	3361	3420
GenBank L nucl.	GCACCATGTAACACATCAGGGTTCAATTATGTTTCTGTGCATTGTCCAGACGGGATCCAT	
HR L nucl.	GCACCATGTAACACATCAGGGTTCAATTATGTTTCTGTGCATTGTCCAGACGGGATCCAT	
M2 L nucl.	.....
M4 L nucl.	GCACCATGTAACACATCAGGGTTCAATTATGTTTCTGTGCATTGTCCAGACGGGATCCAT	
	3421	3480
GenBank L nucl.	GACGTCTTTAGTTACGGGGACCATTGCCTGCTTATCTAGGGTCTAAAACATCTGAATCT	
HR L nucl.	GACGTCTTTAGTTACGGGGACCATTGCCTGCTTATCTAGGGTCTAAAACATCTGAATCT	
M2 L nucl.	.....
M4 L nucl.	GACGTCTTTAGTTACGGGGACCATTGCCTGCTTATCTAGGGTCTAAAACATCTGAATCT	
	3481	3540
GenBank L nucl.	ACATCTATTTTGCAGCCTTGGGAAAGGGAAAGCAAAGTCCCACTGATTAAAAGAGCTACA	
HR L nucl.	ACATCTATTTTGCAGCCTTGGGAAAGGGAAAGCAAAGTCCCACTGATTAAAAGAGCTACA	
M2 L nucl.	.....
M4 L nucl.	ACATCTATTTTGCAGCCTTGGGAAAGGGAAAGCAAAGTCCCACTGATTAAAAGAGCTACA	
	3541	3600
GenBank L nucl.	CGTCTTAGAGATGCTATCTCTTGGTTTGTGTAACCCGACTCTAAACTAGCAATGACTATA	
HR L nucl.	CGTCTTAGAGATGCTATCTCTTGGTTTGTGTAACCCGACTCTAAACTAGCAATGACTATA	
M2 L nucl.	.....
M4 L nucl.	CGTCTTAGAGATGCTATCTCTTGGTTTGTGTAACCCGACTCTAAACTAGCAATGACTATA	
	3601	3660
GenBank L nucl.	CTTTCTAACATCCACTCTTTAACAGGCGAAGAATGGACCAAAGGCAGCATGGGTTCAAA	
HR L nucl.	CTTTCTAACATCCACTCTTTAACAGGCGAAGAATGGACCAAAGGCAGCATGGGTTCAAA	
M2 L nucl.	.....
M4 L nucl.	CTTTCTAACATCCACTCTTTAACAGGCGAAGAATGGACCAAAGGCAGCATGGGTTCAAA	

FIGURE 22-7

GenBank L nucl.	3661	3720
HR L nucl.	AGAACAGGGTCTGCCCTTCATAGGTTTTTCGACATCTCGGATGAGCCATGGTGGGTTTCGCA	
M2 L nucl.	AGAACAGGGTCTGCCCTTCATAGGTTTTTCGACATCTCGGATGAGCCATGGTGGGTTTCGCA	
M4 L nucl.	AGAACAGGGTCTGCCCTTCATAGGTTTTTCGACATCTCGGATGAGCCATGGTGGGTTTCGCA	
GenBank L nucl.	3721	3780
HR L nucl.	TCTCAGAGCACTGCAGCATTGACCAGGTTGATGGCAACTACAGACACCATGAGGGATCTG	
M2 L nucl.	TCTCAGAGCACTGCAGCATTGACCAGGTTGATGGCAACTACAGACACCATGAGGGATCTG	
M4 L nucl.	TCTCAGAGCACTGCAGCATTGACCAGGTTGATGGCAACTACAGACACCATGAGGGATCTG	
GenBank L nucl.	3781	3840
HR L nucl.	GGAGATCAGAATTTTCGACTTTTTATTCCAAAGCAACGTTGCTCTATGCTCAATTACCACC	
M2 L nucl.	GGAGATCAGAATTTTCGACTTTTTATTCCAAAGCAACGTTGCTCTATGCTCAATTACCACC	
M4 L nucl.	GGAGATCAGAATTTTCGACTTTTTATTCCAAAGCAACGTTGCTCTATGCTCAATTACCACC	
GenBank L nucl.	3841	3900
HR L nucl.	ACTGTTGCAAGAGACGGATGGATCACCAGTTGTACAGATCATTATCATATTGCCTGTAAG	
M2 L nucl.	ACTGTTGCAAGAGACGGATGGATCACCAGTTGTACAGATCATTATCATATTGCCTGTAAG	
M4 L nucl.	ACTGTTGCAAGAGACGGATGGATCACCAGTTGTACAGATCATTATCATATTGCCTGTAAG	
GenBank L nucl.	3901	3960
HR L nucl.	TCCTGTTTGAGACCCATAGAAGAGATCACCTGGACTCAAGTATGGACTACACGCCCCCA	
M2 L nucl.	TCCTGTTTGAGACCCATAGAAGAGATCACCTGGACTCAAGTATGGACTACACGCCCCCA	
M4 L nucl.	TCCTGTTTGAGACCCATAGAAGAGATCACCTGGACTCAAGTATGGACTACACGCCCCCA	
GenBank L nucl.	3961	4020
HR L nucl.	GATGTATCCCATGTGCTGAAGACATGGAGGAATGGGGAAGGTTTCGTGGGGACAAGAGATA	
M2 L nucl.	GATGTATCCCATGTGCTGAAGACATGGAGGAATGGGGAAGGTTTCGTGGGGACAAGAGATA	
M4 L nucl.	GATGTATCCCATGTGCTGAAGACATGGAGGAATGGGGAAGGTTTCGTGGGGACAAGAGATA	
GenBank L nucl.	4021	4080
HR L nucl.	AAACAGATCTATCCTTTTAGAAGGGAATTGGAAGAATTTAGCACCTGCTGAGCAATCCTAT	
M2 L nucl.	AAACAGATCTATCCTTTTAGAAGGGAATTGGAAGAATTTAGCACCTGCTGAGCAATCCTAT	
M4 L nucl.	AAACAGATCTATCCTTTTAGAAGGGAATTGGAAGAATTTAGCACCTGCTGAGCAATCCTAT	
GenBank L nucl.	4081	4140
HR L nucl.	CAAGTCGGCAGATGTATAGGTTTTCTATATGGAGACTTGGCGTATAGAAAATCTACTCAT	
M2 L nucl.	CAAGTCGGCAGATGTATAGGTTTTCTATATGGAGACTTGGCGTATAGAAAATCTACTCAT	
M4 L nucl.	CAAGTCGGCAGATGTATAGGTTTTCTATATGGAGACTTGGCGTATAGAAAATCTACTCAT	
GenBank L nucl.	4141	4200
HR L nucl.	GCCGAGGACAGTTCTCTATTTCCCTCTATCTATACAAGGTCGTATTAGAGGTCGAGGTTTC	
M2 L nucl.	GCCGAGGACAGTTCTCTATTTCCCTCTATCTATACAAGGTCGTATTAGAGGTCGAGGTTTC	
M4 L nucl.	GCCGAGGACAGTTCTCTATTTCCCTCTATCTATACAAGGTCGTATTAGAGGTCGAGGTTTC	

FIGURE 22-8

	4201	4260
GenBank L nucl.	TTAAAAGGGTTGCTAGACGGATTAATGAGAGCAAGTTGCTGCCAAGTAATACACCGGAGA	
HR L nucl.	TTAAAAGGGTTGCTAGACGGATTAATGAGAGCAAGTTGCTGCCAAGTAATACACCGGAGA	
M2 L nucl.	.....
M4 L nucl.	TTAAAAGGGTTGCTAGACGGATTAATGAGAGCAAGTTGCTGCCAAGTAATACACCGGAGA	
	4261	4320
GenBank L nucl.	AGTCTGGCTCATTGGAAGAGGCCGGCCAACGCAGTGACGGAGGTTTGATTTACTTGATT	
HR L nucl.	AGTCTGGCTCATTGGAAGAGGCCGGCCAACGCAGTGACGGAGGTTTGATTTACTTGATT	
M2 L nucl.	.....
M4 L nucl.	AGTCTGGCTCATTGGAAGAGGCCGGCCAACGCAGTGACGGAGGTTTGATTTACTTGATT	
	4321	4380
GenBank L nucl.	GATAAATTGAGTGTATCACCTCCATTCTCTTCTTACTAGATCAGGACCTATTAGAGAC	
HR L nucl.	GATAAATTGAGTGTATCACCTCCATTCTCTTCTTACTAGATCAGGACCTATTAGAGAC	
M2 L nucl.	.....
M4 L nucl.	GATAAATTGAGTGTATCACCTCCATTCTCTTCTTACTAGATCAGGACCTATTAGAGAC	
	4381	4440
GenBank L nucl.	GAATTAGAAACGATTCCCCACAAGATCCCAACCTCCTATCCGACAAGCAACCGTGATATG	
HR L nucl.	GAATTAGAAACGATTCCCCACAAGATCCCAACCTCCTATCCGACAAGCAACCGTGATATG	
M2 L nucl.	.....
M4 L nucl.	GAATTAGAAACGATTCCCCACAAGATCCCAACCTCCTATCCGACAAGCAACCGTGATATG	
	4441	4500
GenBank L nucl.	GGGGTGATTGTCAGAAATTACTTCAAATACCAATGCCGTCTAATTGAAAAGGGAAAATAC	
HR L nucl.	GGGGTGATTGTCAGAAATTACTTCAAATACCAATGCCGTCTAATTGAAAAGGGAAAATAC	
M2 L nucl.	.....
M4 L nucl.	GGGGTGATTGTCAGAAATTACTTCAAATACCAATGCCGTCTAATTGAAAAGGGAAAATAC	
	4501	4560
GenBank L nucl.	AGATCACATTATTCACAATTATGGTTATTCTCAGATGTCTTATCCATAGACTTCATTGGA	
HR L nucl.	AGATCACATTATTCACAATTATGGTTATTCTCAGATGTCTTATCCATAGACTTCATTGGA	
M2 L nucl.	.....
M4 L nucl.	AGATCACATTATTCACAATTATGGTTATTCTCAGATGTCTTATCCATAGACTTCATTGGA	
	4561	4620
GenBank L nucl.	CCATTCTCTATTTCCACCACCCTCTTGCAAATCCTATACAAGCCATTTTATCTGGGAAA	
HR L nucl.	CCATTCTCTATTTCCACCACCCTCTTGCAAATCCTATACAAGCCATTTTATCTGGGAAA	
M2 L nucl.	.....
M4 L nucl.	CCATTCTCTATTTCCACCACCCTCTTGCAAATCCTATACAAGCCATTTTATCTGGGAAA	
	4621	4680
GenBank L nucl.	GATAAGAATGAGTTGAGAGAGCTGGCAAATCTTTCTTCATTGCTAAGATCAGGAGAGGGG	
HR L nucl.	GATAAGAATGAGTTGAGAGAGCTGGCAAATCTTTCTTCATTGCTAAGATCAGGAGAGGGG	
M2 L nucl.	.....
M4 L nucl.	GATAAGAATGAGTTGAGAGAGCTGGCAAATCTTTCTTCATTGCTAAGATCAGGAGAGGGG	
	4681	4740
GenBank L nucl.	TGGGAAGACATACATGTGAAATTCTTCACCAAGGACATATTATTGTGTCCAGAGGAAATC	
HR L nucl.	TGGGAAGACATACATGTGAAATTCTTCACCAAGGACATATTATTGTGTCCAGAGGAAATC	
M2 L nucl.	.....
M4 L nucl.	TGGGAAGACATACATGTGAAATTCTTCACCAAGGACATATTATTGTGTCCAGAGGAAATC	

FIGURE 22-9

	4741		4800
GenBank L nucl.	AGACATGCTTGCAAGTTCGGGATTGCTAAGGATAATAATAAAGACATGAGCTATCCCCCT		
HR L nucl.	AGACATGCTTGCAAGTTCGGGATTGCTAAGGATAATAATAAAGACATGAGCTATCCCCCT		
M2 L nucl.	.....	
M4 L nucl.	AGACATGCTTGCAAGTTCGGGATTGCTAAGGATAATAATAAAGACATGAGCTATCCCCCT		
	4801		4860
GenBank L nucl.	TGGGGAAGGGAATCCAGAGGGACAATTACAACAATCCCTGTTTATTATACGACCACCCCT		
HR L nucl.	TGGGGAAGGGAATCCAGAGGGACAATTACAACAATCCCTGTTTATTATACGACCACCCCT		
M2 L nucl.	.....	
M4 L nucl.	TGGGGAAGGGAATCCAGAGGGACAATTACAACAATCCCTGTTTATTATACGACCACCCCT		
	4861		4920
GenBank L nucl.	TACCCAAAGATGCTAGAGATGCCTCCAAGAATCCAAAATCCCTGCTGTCCGGAATCAGG		
HR L nucl.	TACCCAAAGATGCTAGAGATGCCTCCAAGAATCCAAAATCCCTGCTGTCCGGAATCAGG		
M2 L nucl.	.....	
M4 L nucl.	TACCCAAAGATGCTAGAGATGCCTCCAAGAATCCAAAATCCCTGCTGTCCGGAATCAGG		
	4921		4980
GenBank L nucl.	TTGGGCCAATTACCAACTGGCGCTCATTATAAAATTCGGAGTATATTACATGGAATGGGA		
HR L nucl.	TTGGGCCAGTTACCAACTGGCGCTCATTATAAAATTCGGAGTATATTACATGGAATGGGA		
M2 L nucl.	.....	
M4 L nucl.	TTGGGCCAGTTACCAACTGGCGCTCATTATAAAATTCGGAGTATATTACATGGAATGGGA		
	4981		5040
GenBank L nucl.	ATCCATTACAGGGACTTCTTGAGTTGTGGAGACGGCTCCGGAGGGATGACTGCTGCATTA		
HR L nucl.	ATCCATTACAGGGACTTCTTGAGTTGTGGAGACGGCTCCGGAGGGATGACTGCTGCATTA		
M2 L nucl.	.....	
M4 L nucl.	ATCCATTACAGGGACTTCTTGAGTTGTGGAGACGGCTCCGGAGGGATGACTGCTGCATTA		
	5041		5100
GenBank L nucl.	CTACGAGAAAATGTGCATAGCAGAGGAATATTCAATAGTCTGTTAGAATTATCAGGGTCA		
HR L nucl.	CTACGAGAAAATGTGCATAGCAGAGGAATATTCAATAGTCTGTTAGAATTATCAGGGTCA		
M2 L nucl.	.....	
M4 L nucl.	CTACGAGAAAATGTGCATAGCAGAGGAATATTCAATAGTCTGTTAGAATTATCAGGGTCA		
	5101		5160
GenBank L nucl.	GTCATGCGAGGCGCCTCTCCTGAGCCCCCAGTGCCCTAGAACTTTAGGAGGAGATAAA		
HR L nucl.	GTCATGCGAGGCGCCTCTCCTGAGCCCCCAGTGCCCTAGAACTTTAGGAGGAGATAAA		
M2 L nucl.	.....	
M4 L nucl.	GTCATGCGAGGCGCCTCTCCTGAGCCCCCAGTGCCCTAGAACTTTAGGAGGAGATAAA		
	5161		5220
GenBank L nucl.	TCGAGATGTGTAAATGGTGAAACATGTTGGGAATATCCATCTGACTTATGTGACCCAAGG		
HR L nucl.	TCGAGATGTGTAAATGGTGAAACATGTTGGGAATATCCATCTGACTTATGTGACCCAAGG		
M2 L nucl.	.....	
M4 L nucl.	TCGAGATGTGTAAATGGTGAAACATGTTGGGAATATCCATCTGACTTATGTGACCCAAGG		
	5221		5280
GenBank L nucl.	ACTTGGGACTATTTCCCTCCGACTCAAAGCAGGCTTGGGGCTTCAAATTGATTTAATTGTA		
HR L nucl.	ACTTGGGACTATTTCCCTCCGACTCAAAGCAGGCTTGGGGCTTCAAATTGATTTAATTGTA		
M2 L nucl.	.....	
M4 L nucl.	ACTTGGGACTATTTCCCTCCGACTCAAAGCAGGCTTGGGGCTTCAAATTGATTTAATTGTA		

FIGURE 22-10

	5281	5340
GenBank L nucl.	ATGGATATGGAAGTTCGGGATTCTTCTACTAGCCTGAAAAATTGAGACGAATGTTAGAAAT	
HR L nucl.	ATGGATATGGAAGTTCGGGATTCTTCTACTAGCCTGAAAAATTGAGACGAATGTTAGAAAT	
M2 L nucl.	.....
M4 L nucl.	ATGGATATGGAAGTTCGGGATTCTTCTACTAGCCTGAAAAATTGAGACGAATGTTAGAAAT	
	5341	5400
GenBank L nucl.	TATGTGCACCGGATTTTGGATGAGCAAGGAGTTTAAATCTACAAGACTTATGGAACATAT	
HR L nucl.	TATGTGCACCGGATTTTGGATGAGCAAGGAGTTTAAATCTACAAGACTTATGGAACATAT	
M2 L nucl.	.....
M4 L nucl.	TATGTGCACCGGATTTTGGATGAGCAAGGAGTTTAAATCTACAAGACTTATGGAACATAT	
	5401	5460
GenBank L nucl.	ATTTGTGAGAGCGAAAAAGAATGCAGTAACAATCCTTGGTCCCATGTTCAAGACGGTCGAC	
HR L nucl.	ATTTGTGAGAGCGAAAAAGAATGCAGTAACAATCCTTGGTCCCATGTTCAAGACGGTCGAC	
M2 L nucl.	.....
M4 L nucl.	ATTTGTGAGAGCGAAAAAGAATGCAGTAACAATCCTTGGTCCCATGTTCAAGACGGTCGAC	
	5461	5520
GenBank L nucl.	TTAGTTCAAACAGAATTTAGTAGTTCTCAAACGTCTGAAGTATATATGGTATGTAAAGGT	
HR L nucl.	TTAGTTCAAACAGAATTTAGTAGTTCTCAAACGTCTGAAGTATATATGGTATGTAAAGGT	
M2 L nucl.	.....
M4 L nucl.	TTAGTTCAAACAGAATTTAGTAGTTCTCAAACGTCTGAAGTATATATGGTATGTAAAGGT	
	5521	5580
GenBank L nucl.	TTGAAGAAATTAATCGATGAACCCAATCCCGATTGGTCTTCCATCAATGAATCCTGGAAA	
HR L nucl.	TTGAAGAAATTAATCGATGAACCCAATCCCGATTGGTCTTCCATCAATGAATCCTGGAAA	
M2 L nucl.	.....
M4 L nucl.	TTGAAGAAATTAATCGATGAACCCAATCCCGATTGGTCTTCCATCAATGAATCCTGGAAA	
	5581	5640
GenBank L nucl.	AACCTGTACGCATTCCAGTCATCAGAACAGGAATTTGCCAGAGCAAAGAAGGTTAGTACA	
HR L nucl.	AACCTGTACGCATTCCAGTCATCAGAACAGGAATTTGCCAGAGCAAAGAAGGTTAGTACA	
M2 L nucl.	.....
M4 L nucl.	AACCTGTACGCATTCCAGTCATCAGAACAGGAATTTGCCAGAGCAAAGAAGGTTAGTACA	
	5641	5700
GenBank L nucl.	TACTTTACCTTGACAGGTATTCCCTCCCAATTCATTCTGATCCTTTTGTGAACATTGAG	
HR L nucl.	TACTTTACCTTGACAGGTATTCCCTCCCAATTCATTCTGATCCTTTTGTGAACATTGAG	
M2 L nucl.	.....
M4 L nucl.	TACTTTACCTTGACAGGTATTCCCTCCCAATTCATTCTGATCCTTTTGTGAACATTGAG	
	5701	5760
GenBank L nucl.	ACTATGCTACAAATATTTCGGAGTACCCACGGGTGTGTCTCATGCGGCTGCCTTAAATCA	
HR L nucl.	ACTATGCTACAAATATTTCGGAGTACCCACGGGTGTGTCTCATGCGGCTGCCTTAAATCA	
M2 L nucl.	.....
M4 L nucl.	ACTATGCTACAAATATTTCGGAGTACCCACGGGTGTGTCTCATGCGGCTGCCTTAAATCA	
	5761	5820
GenBank L nucl.	TCTGATAGACCTGCAGATTTATTGACCATTAGCCTTTTTTATATGGCGATTATATCGTAT	
HR L nucl.	TCTGATAGACCTGCAGATTTATTGACCATTAGCCTTTTTTATATGGCGATTATATCGTAT	
M2 L nucl.	.....
M4 L nucl.	TCTGATAGACCTGCAGATTTATTGACCATTAGCCTTTTTTATATGGCGATTATATCGTAT	

FIGURE 22-11

	5821	5880
GenBank L nucl.	TATAACATCAATCATATCAGAGTAGGACCGATACCTCCGAACCCCCCATCAGATGGAATT	
HR L nucl.	TATAACATCAATCATATCAGAGTAGGACCGATACCTCCGAACCCCCCATCAGATGGAATT	
M2 L nucl.	.....
M4 L nucl.	TATAACATCAATCATATCAGAGTAGGACCGATACCTCCGAACCCCCCATCAGATGGAATT	
	5881	5940
GenBank L nucl.	GCACAAAATGTGGGGATCGCTATAACTGGTATAAGCTTTTGGCTGAGTTTGATGGAGAAA	
HR L nucl.	GCACAAAATGTGGGGATCGCTATAACTGGTATAAGCTTTTGGCTGAGTTTGATGGAGAAA	
M2 L nucl.	.....
M4 L nucl.	GCACAAAATGTGGGGATCGCTATAACTGGTATAAGCTTTTGGCTGAGTTTGATGGAGAAA	
	5941	6000
GenBank L nucl.	GACATTCCACTATATCAACAGTGTTTAGCAGTTATCCAGCAATCATTCCCGATTAGGTGG	
HR L nucl.	GACATTCCACTATATCAACAGTGTTTAGCAGTTATCCAGCAATCATTCCCGATTAGGTGG	
M2 L nucl.	.....
M4 L nucl.	GACATTCCACTATATCAACAGTGTTTAGCAGTTATCCAGCAATCATTCCCGATTAGGTGG	
	6001	6060
GenBank L nucl.	GAGGCTGTTTTCAGTAAAAGGAGGATACAAGCAGAAGTGGAGTACTAGAGGTGATGGGCTC	
HR L nucl.	GAGGCTGTTTTCAGTAAAAGGAGGATACAAGCAGAAGTGGAGTACTAGAGGTGATGGGCTC	
M2 L nucl.	.....
M4 L nucl.	GAGGCTGTTTTCAGTAAAAGGAGGATACAAGCAGAAGTGGAGTACTAGAGGTGATGGGCTC	
	6061	6120
GenBank L nucl.	CCAAAAGATACCCGAATTCAGACTCCTTGGCCCCAATCGGGAACTGGATCAGATCTCTG	
HR L nucl.	CCAAAAGATACCCGAATTCAGACTCCTTGGCCCCAATCGGGAACTGGATCAGATCTCTG	
M2 L nucl.	.....
M4 L nucl.	CCAAAAGATACCCGAATTCAGACTCCTTGGCCCCAATCGGGAACTGGATCAGATCTCTG	
	6121	6180
GenBank L nucl.	GAATTGGTCCGAAACCAAGTTCGTCTAAATCCATTCAATGAGATCTTGTTCAATCAGCTA	
HR L nucl.	GAATTGGTCCGAAACCAAGTTCGTCTAAATCCATTCAATGAGATCTTGTTCAATCAGCTA	
M2 L nucl.	.....
M4 L nucl.	GAATTGGTCCGAAACCAAGTTCGTCTAAATCCATTCAATGAGATCTTGTTCAATCAGCTA	
	6181	6240
GenBank L nucl.	TGTCGTACAGTGGATAATCATTTGAAATGGTCAAATTTGCGAAACAAACACAGGAATGATT	
HR L nucl.	TGTCGTACAGTGGATAATCATTTGAAATGGTCAAATTTGCGAAAAAACACAGGAATGATT	
M2 L nucl.	.....
M4 L nucl.	TGTCGTACAGTGGATAATCATTTGAAATGGTCAAATTTGCGAAAAAACACAGGAATGATT	
	6241	6300
GenBank L nucl.	GAATGGATCAATAGACGAATTTCAAAAGAAGACCGGTCTATACTGATGTTGAAGAGTGAC	
HR L nucl.	GAATGGATCAATAGACGAATTTCAAAAGAAGACCGGTCTATACTGATGTTGAAGAGTGAC	
M2 L nucl.	.....
M4 L nucl.	GAATGGATCAATAGACGAATTTCAAAAGAAGACCGGTCTATACTGATGTTGAAGAGTGAC	

FIGURE 22-12

	6301	6360
GenBank L nucl.	CTACA	
HR L nucl.	CTACATGAGGAAAACCTCTTGGAGAGATTAA.....	
M2 L nucl.	CTACATGAGGAAAACCTCTTGGAGAGATTAAAAAATCATGAGGAGACTCCAAACTTTAAGT	
M4 L nucl.	CTACATGAGGAAAACCTCTTGGAGAGATTAA.....	
	6361	6395
GenBank L nucl.	.....
HR L nucl.	ATGAAAAAAACCTTTGATCCTTAAGACCCTCTTGTG	
M2 L nucl.	.....
M4 L nucl.	.....

FIGURE 22-13

GenBank L	a.a.	1	60
HR L a.a.		MEVHDFETDEFNDFNEDDYATREFLNPDERMTYLNHADYNLNSPLISDDIDNLIRKFNSL	
M4 L a.a.		MEVHDFETDEFNDFNEDDYATREFLNPDERMTYLNHADYNLNSPLISDDIDNLIRKFNSL	
GenBank L	a.a.	61	120
HR L a.a.		PIPSMWDSKNWDGVLEMLTSCQANPISTSQMHKWMGSWLMSDNHDASQGYSLHEVDKEA	
M4 L a.a.		PIPSMWDSKNWDGVLEMLTSCQANPISTSQMHKWMGSWLMSDNHDASQGYSLHEVDKEA	
GenBank L	a.a.	121	180
HR L a.a.		EITFDVVETFIRGWGNKPIEYIKKERWTDSFKILAYLCQKFLDLHKLTLILNAVSEVELL	
M4 L a.a.		EITFDVVETFIRGWGNKPIEYIKKERWTDSFKILAYLCQKFLDLHKLTLILNAVSEVELL	
GenBank L	a.a.	181	240
HR L a.a.		NLARTFKGKVRSSHGTNCRIRVPSLGPTFISEGWAYFKKLDILMDRNFLLMVKDVIIG	
M4 L a.a.		NLARTFKGKVRSSHGTNCRIRVPSLGPTFISEGWAYFKKLDILMDRNFLLMVKDVIIG	
GenBank L	a.a.	241	300
HR L a.a.		RMQTVLSMVCRIDNLFSEQDIFSLNLIYRIGDKIVERQGNFSYDLIKMVEPICNLRLMKL	
M4 L a.a.		RMQTVLSMVCRIDNLFSEQDIFSLNLIYRIGDKIVERQGNFSYDLIKMVEPICNLRLMKL	
GenBank L	a.a.	301	360
HR L a.a.		ARESRPLVPQFPFHENHIKTSVDEGAKIDRGIRFLHDQIMSVKTVDLTLVIYGSFRHWGH	
M4 L a.a.		ARESRPLVPQFPFHENHIKTSVDEGAKIDRGIRFLHDQIMSVKTVDLTLVIYGSFRHWGH	
GenBank L	a.a.	361	420
HR L a.a.		PFIDYYIGLEKLHSQVTMKKIDIDVSYAKALASDLARIVLFQQFNDHKKWVFVNGDLLPHDH	
M4_L.pro		PFIDYYAGLEKLHSQVTMKKIDIDVSYAKALASDLARIVLFQQFNDHKKWVFVNGDLLPHDH	
GenBank L	a.a.	421	480
HR L a.a.		PFKSHVKENTWPTAAQVQDFGDKWHELPLIKCFEIPDLLDPSIIYSDKSHSMNRSEVLKH	
M4 L a.a.		PFKSHVKENTWPTAAQVQDFGDKWHELPLIKCFEIPDLLDPSIIYSDKSHSMNRSEVLKH	
GenBank L	a.a.	481	540
HR L a.a.		VRMNPNTPIPSKKVLQTM LDTKATNWKEFLKEIDEKGLDDDDLIIGLKGKERELKLAGRF	
M4 L a.a.		VRMNPNTPIPSKKVLQTM LDTKATNWKEFLKEIDEKGLDDDDLIIGLKGKERELKLAGRF	
GenBank L	a.a.	541	600
HR L a.a.		FSLMSWKLREYFVITEYLIKTHFVPMFKGLTMADDLTAVIKKMLDSSSGQGLKSYEAICI	
M4 L a.a.		FSLMSWKLREYFVITEYLIKTHFVPMFKGLTMADDLTAVIKKMLDSSSGQGLKSYEAICI	

FIGURE 23-1

GenBank L	a.a.	601	660
HR L a.a.		ANHIDYEKWNHQRKLSNGPVFRVMGQFLGYPSLIERTHEFFEKSLIYYNGRPDLMRVHN	
M4 L a.a.		ANHIDYEKWNHQRKLSNGPVFRVMGQFLGYPSLIERTHEFFEKSLIYYNGRPDLMRVHN	
GenBank L	a.a.	661	720
HR L a.a.		NTLINSTSQRVCWQGQEGGLEGLRQKGWILNLLVIQREAKIRNTAVKVLAQGDNQVICT	
M4 L a.a.		NTLINSTSQRVCWQGQEGGLEGLRQKGWSILNLLVIQREAKIRNTAVKVLAQGDNQVICT	
GenBank L	a.a.	721	780
HR L a.a.		QYKTKKSRNVVELQGALNQMVSNNEKIMTAIKIGTGKLGILLINDDETMQSADYLNYGKIP	
M4 L a.a.		QYKTKKSRNVVELQGALNQMVSNNEKIMTAIKIGTGKLGILLINDDETMQSADYLNYGKIP	
GenBank L	a.a.	781	840
HR L a.a.		IFRGVIRGLETKRWSRVTCVTNDQIPTCANIMSSVSTNALTVAHFAENPINAMIQYNYFG	
M4 L a.a.		IFRGVIRGLETKRWSRVTCVTNDQIPTCANIMSSVSTNALTVAHFAENPINAMIQYNYFG	
GenBank L	a.a.	841	900
HR L a.a.		TFARLLMMHDPALRQSLYEVQDKIPGLHSSTFKYAMLYLDPSIGGVSGMSLSRFLIRAF	
M4 L a.a.		TFARLLMMHDPALRQSLYEVQDKIPGLHSSTFKYAMLYLDPSIGGVSGMSLSRFLIRAF	
GenBank L	a.a.	901	960
HR L a.a.		PDPVTESLSFWRFIHVHARSEHLKEMSAVFGNPEIAKFRITHIDKLVEDPTSLNIAMGMS	
M4 L a.a.		PDPVTESLSFWRFIHVHARSEHLKEMSAVFGNPEIAKFRITHIDKLVEDPTSLNIAMGMS	
GenBank L	a.a.	961	1020
HR L a.a.		PANLLKTEVKKCLIESRQTIRNQVIKDATIYLYHEEDRLRSFLWSINPLFPRFLSEFKSG	
M4 L a.a.		PANLLKTEVKKCLIESRQTIRNQVIKDATIYLYHEEDRLRSFLWSINPLFPRFLSEFKSG	
GenBank L	a.a.	1021	1080
HR L a.a.		TFLGVADGLISLFQNSRTIRNSFKKKYHREDDLIVRSEVSSLTHLGKLHLRRGSCKMWT	
M4 L a.a.		TFLGVADGLISLFQNSRTIRNSFKKKYHREDDLIVRSEVSSLTHLGKLHLRRGSCKMWT	
GenBank L	a.a.	1081	1140
HR L a.a.		CSATHADTLRYKSWGRTVIGTTVPHPLEMLGPQHRKETPCAPCNTSGFNYSVHCPDGIH	
M4 L a.a.		CSATHADTLRYKSWGRTVIGTTVPHPLEMLGPQHRKETPCAPCNTSGFNYSVHCPDGIH	
GenBank L	a.a.	1141	1200
HR L a.a.		DVFSSRGPLPAYLGSKTSESTSILQPWERESKVPLIKRATRLRDAISWFVEPD SKLAMTI	
M4 L a.a.		DVFSSRGPLPAYLGSKTSESTSILQPWERESKVPLIKRATRLRDAISWFVEPD SKLAMTI	

FIGURE 23-2

GenBank L	a.a.	1201	1260
HR L a.a.		LSNIHSLTGEEWTKRQHGFKRTGSALHRFSTSRMSHGGFASQSTAALTRLMATTD TMRDL	
M4 L a.a.		LSNIHSLTGEEWTKRQHGFKRTGSALHRFSTSRMSHGGFASQSTAALTRLMATTD TMRDL	
GenBank L	a.a.	1261	1320
HR L a.a.		GDQNFDFLFQATLLYAQITTTVARDGWITSCTDHYHIACKSCLRPIEEITLDSSMDYTPP	
M4 L a.a.		GDQNFDFLFQATLLYAQITTTVARDGWITSCTDHYHIACKSCLRPIEEITLDSSMDYTPP	
GenBank L	a.a.	1321	1380
HR L a.a.		DVSHVLK TWRNGEGSWGQEIKQIYPLEGNWKNLAPAEQSYQVGR CIGFLYGD LAYRKSTH	
M4 L a.a.		DVSHVLK TWRNGEGSWGQEIKQIYPLEGNWKNLAPAEQSYQVGR CIGFLYGD LAYRKSTH	
GenBank L	a.a.	1381	1440
HR L a.a.		AEDSSLFPLSIQGRIRGRGFLKGLLDGLMRASCCQVIHRRSLAHLKRPANAVYGGLIYLI	
M4 L a.a.		AEDSSLFPLSIQGRIRGRGFLKGLLDGLMRASCCQVIHRRSLAHLKRPANAVYGGLIYLI	
GenBank L	a.a.	1441	1500
HR L a.a.		DKLSVSPFPLSLTRSGPIRDELETIPHKIPTSYP TSNRDMGVIVRNYFKYQCRLIEKGKY	
M4 L a.a.		DKLSVSPFPLSLTRSGPIRDELETIPHKIPTSYP TSNRDMGVIVRNYFKYQCRLIEKGKY	
GenBank L	a.a.	1501	1560
HR L a.a.		RSHYSQLWLFSDVLSIDFIGPFSISTTLLQILYKPFLSGKDKNELRELANLSSLLRS GEG	
M4 L a.a.		RSHYSQLWLFSDVLSIDFIGPFSISTTLLQILYKPFLSGKDKNELRELANLSSLLRS GEG	
GenBank L	a.a.	1561	1620
HR L a.a.		WEDIHVKF FTKDILLCP EEIRHACKFGIAKDN NKDMSYPPWG RESRGTIT TTPVYYTTTP	
M4 L a.a.		WEDIHVKF FTKDILLCP EEIRHACKFGIAKDN NKDMSYPPWG RESRGTIT TTPVYYTTTP	
GenBank L	a.a.	1621	1680
HR L a.a.		YPKMLEMP PRIQNPLLSGIRLGQLPTGAHYKIRSILHGMGIHYRDFLSCGDGSGG MTAAL	
M4 L a.a.		YPKMLEMP PRIQNPLLSGIRLGQLPTGAHYKIRSILHGMGIHYRDFLSCGDGSGG MTAAL	
GenBank L	a.a.	1681	1740
HR L a.a.		LRENVHSRGIFNSLLELSGSVMRGASPEPPSALET LGGDKSRCVNGETCWEYPSDLCDPR	
M4 L a.a.		LRENVHSRGIFNSLLELSGSVMRGASPEPPSALET LGGDKSRCVNGETCWEYPSDLCDPR	
GenBank L	a.a.	1741	1800
HR L a.a.		TWDYFLRLKAGLGLQIDLIVMDMEVRDSSTSLKIETNVRNYVHRILDEQGVLIYKTYGTY	
M4 L a.a.		TWDYFLRLKAGLGLQIDLIVMDMEVRDSSTSLKIETNVRNYVHRILDEQGVLIYKTYGTY	
GenBank L	a.a.	1801	1860
HR L a.a.		ICESEKNAV TILGPMFKTVDLVQTEFSSSQ TSEVYMVCKGLKKLIDEPNPDWSSINESWK	
M4 L a.a.		ICESEKNAV TILGPMFKTVDLVQTEFSSSQ TSEVYMVCKGLKKLIDEPNPDWSSINESWK	

FIGURE 23-3

		1861		1920
GenBank L	a.a.	NLYAFQSSEQEFARAKKVSTYFTLTGIPSQFIPDPFVNIETMLQIFGVPTGVSHAAALKS		
HR L a.a.		NLYAFQSSEQEFARAKKVSTYFTLTGIPSQFIPDPFVNIETMLQIFGVPTGVSHAAALKS		
M4 L a.a.		NLYAFQSSEQEFARAKKVSTYFTLTGIPSQFIPDPFVNIETMLQIFGVPTGVSHAAALKS		
		1921		1980
GenBank L	a.a.	SDRPADLLTISLFYMAIISYYNINHIRVGPIPPNPPSDGIAQNVGIAITGISFWLSLMEK		
HR L a.a.		SDRPADLLTISLFYMAIISYYNINHIRVGPIPPNPPSDGIAQNVGIAITGISFWLSLMEK		
M4 L a.a.		SDRPADLLTISLFYMAIISYYNINHIRVGPIPPNPPSDGIAQNVGIAITGISFWLSLMEK		
		1981		2040
GenBank L	a.a.	DIPLYQQCLAVIQQSFPIRWEAVSVKGGYKQKWSTRGDGLPKDTRISDSLAPIGNWIRSL		
HR L a.a.		DIPLYQQCLAVIQQSFPIRWEAVSVKGGYKQKWSTRGDGLPKDTRISDSLAPIGNWIRSL		
M4 L a.a.		DIPLYQQCLAVIQQSFPIRWEAVSVKGGYKQKWSTRGDGLPKDTRISDSLAPIGNWIRSL		
		2041		2100
GenBank L	a.a.	ELVRNQVRLNPFNEILFNQLCRTVDNHLKWSNLRKNTGMIEWINRRISKEDRSILMLKSD		
HR L a.a.		ELVRNQVRLNPFNEILFNQLCRTVDNHLKWSNLRKNTGMIEWINRRISKEDRSILMLKSD		
M4 L a.a.		ELVRNQVRLNPFNEILFNQLCRTVDNHLKWSNLRKNTGMIEWINRRISKEDRSILMLKSD		
		2101	2110	
GenBank L	a.a.	LHEENSWRD		
HR L a.a.		LHEENSWRD		
M4 L a.a.		LHEENSWRD		

FIGURE 23-4